

# U.S. NAVY MEDICINE

March 1977



**VADM Willard P. Arentzen, MC, USN**  
Surgeon General of the Navy

**RADM Paul Kaufman, MC, USN**  
Deputy Surgeon General

**EDITOR**

Sylvia W. Shaffer

**MANAGING EDITOR**

June Wyman

**ASSISTANT EDITOR**

Virginia M. Novinski

**EDITORIAL ASSISTANT**

Nancy R. Keesee

**CONTRIBUTING EDITORS**

*Contributing Editor-in-Chief:*

CDR C.T. Cloutier (MC)

*Aerospace Medicine:* CAPT M.G. Webb (MC); *Dental Corps:* CAPT E.E. McDonald (DC); *Education:* CAPT J.S. Cassells (MC); *Fleet Support:* CAPT R.W. Jones (MC); *Gastroenterology:* CAPT D.O. Castell (MC); *Hospital Corps:* HMCM H.S. Anderson; *Legal:* LCDR R.E. Broach (JAGC); *Marine Corps:* CAPT D.R. Hauler (MC); *Medical Service Corps:* LCDR J.T. Dalton (MSC); *Naval Reserve:* CAPT N.V. Cooley (MC, USN); *Nephrology:* CDR J.D. Wallin (MC); *Nurse Corps:* CAPT P.J. Elsass (NC); *Occupational Medicine:* CAPT G.M. Lawton (MC); *Preventive Medicine:* CAPT D.F. Hoeffler (MC); *Psychiatry:* CAPT R.W. Steyn (MC); *Research:* CAPT C.E. Brodine (MC); *Submarine Medicine:* CAPT H.E. Glick (MC)

**POLICY:** *U.S. Navy Medicine* is an official publication of the Navy Medical Department, published by the Bureau of Medicine and Surgery. It disseminates to Navy Medical Department personnel official and professional information relative to medicine, dentistry, and the allied health sciences. Opinions expressed are those of the authors and do not necessarily represent the official position of the Department of the Navy, the Bureau of Medicine and Surgery, or any other governmental department or agency. Trade names are used for identification only and do not represent an endorsement by the Department of the Navy or the Bureau of Medicine and Surgery. Although *U.S. Navy Medicine* may cite or extract from directives, official authority for action should be obtained from the cited reference.

**DISTRIBUTION:** *U.S. Navy Medicine* is distributed to active-duty Medical Department personnel via the Standard Navy Distribution List. The following distribution is authorized: one copy for each Medical, Dental, Medical Service and Nurse Corps officer; one copy for every 10 enlisted Medical Department members. Requests to increase or decrease the number of allotted copies should be forwarded to *U.S. Navy Medicine* via the local command.

**CORRESPONDENCE:** All correspondence should be addressed to: Editor, *U.S. Navy Medicine*, Department of the Navy, Bureau of Medicine and Surgery (Code 0010), Washington, D.C. 20372. Telephone: (Area Code 202) 254-4253, 254-4316, 254-4214; Autovon 294-4253, 294-4316, 294-4214. Contributions from the field are welcome and will be published as space permits, subject to editing and possible abridgment.

The issuance of this publication is approved in accordance with Department of the Navy Publications and Printing Regulations (NAVEXOS P-35).

# U.S. NAVY MEDICINE

Volume 68, Number 3  
March 1977

**1 From the Surgeon General**

**2 Department Rounds**

Toward a quieter Navy . . . Cecil Field going solar . . . Puget Sound's big gift . . . Introducing CEARP . . . NRMCC Yokosuka nursing symposia

**8 Policy** Instructions and directives

**10 Notes and Announcements**

New Secretary of Defense . . . Otolaryngology symposium . . . Dental continuing education courses . . . Air Force clinical surgeons plan April seminar . . . Standard formats developed for medical boards . . . Pathology courses set . . . New bed scale developed . . . Neurological surgery board examinations . . . Armed Forces obstetricians and gynecologists to meet . . . Cardiotachometer introduced . . . NRMCC Oakland nursing conference held

**12 BUMED SITREP**

**13 Scholars' Scuttlebutt**

Restructuring the GME-1 year . . . USUHS on tour

**14 Clinical Notes**

A Short Guide to Bacterial and Viral Infections in Children  
*LT R.K. Reed, MC, USNR*

**16 Professional**

Child Advocacy at Naval Regional Medical Center Portsmouth, Va.  
*CDR T. Lohner, MC, USN*

**18 Causes of Hospitalization of Active-Duty Personnel, 1974**

*CDR L.J. Melton III, MC, USN*  
*L.P. Hellman, Sc.D.*

**21 Independent Duty**

Toothache Diagnosis and Treatment  
*LCDR W.S. Hwang, DC, USN*  
*LT F. Aker, DC, USNR*

**23 Roster**

Staff Medical and Dental Officers at Major Activities

**29 NAVMED Newsmakers**

**COVER:** As part of the Navy Hearing Conservation Program, flightline workers are issued specially designed ear muffs that protect them from the hazards of aircraft engine noise. To learn more about the Medical Department's role in hearing conservation, see "Toward a Quieter Navy," beginning on page 2.

# From the Surgeon General

## One Anniversary, One Mission

MARCH 3, 1977, marks the 106th anniversary of the establishment of the Navy Medical Corps. Rather than celebrating this date as the birthday of only one corps, I prefer that we recognize 3 March as the beginning of Navy medicine, and the Navy Medical Department as a whole. In support of this concept I have directed that we abandon the tradition of observing individual corps birthdays, substituting instead a unified celebration honoring the founding of the Navy Medical Department.

The physicians who participated in the creation of the Navy Medical Department could never have predicted the changes that have since occurred in the delivery of health services. Standards of care and delivery methods are changing so rapidly that even today's state of the art will be old-fashioned by next year's anniversary celebration. Never before have we so needed a Navy Medical Department that works together toward its goal of giving excellent service to patients entrusted to our care.

A unified approach to our mission and a common anniversary observance need not detract from justifiable *esprit de corps*. But such pride of corps can be fully and more appropriately demonstrated by our professional productivity, well-groomed appearance, and dedication to the Medical Department mission. From this time on, our commitment should be totally Navy. Our Medical Department birthday should reflect a continuing, proud resolve to go forward united in the service of our country.



W.P. ARENTZEN  
Vice Admiral, MC, USN  
Surgeon General of the Navy



At a recent conference, VADM Arentzen greets CAPT Clyde W. Jones (MC), chief of the Anesthesiology Service at NRMC San Diego.



Circumaural ear protectors muffle noise at target practice; at right, the arrow points to a noise dosimeter that measures this man's exposure to noise on the flight line.



## Department Rounds

### Preventive Medicine

# Toward a Quieter Navy

Noise-induced hearing loss is an increasingly significant and costly problem in the Navy—a problem which requires greater command attention and emphasis at all levels.

That was the Secretary of the Navy's message to Navy members in ALNAV 083/76, issued 10 Dec 1976. His call to action underscored the urgency of the Navy's Hearing Conservation Program, and the need for all commands to actively promote hearing conservation.

"Hearing impairment to our military and civilian personnel, once incurred, cannot be cured," the Secretary stressed. "It must be prevented." Such prevention is the focus of current Medical Department efforts in support of the Navy's Hearing Conservation Program.

**Setting standards.** The Bureau of Medicine and Surgery currently sets standards for effective hearing conservation procedures throughout

the Navy. The Navy Environmental Health Center in Cincinnati, Navy preventive medicine units, and the Hearing Conservation Service of the Naval Aerospace Medical Institute in Pensacola work with line commanders and engineering and safety workers to develop the best possible program. Here is a breakdown of responsibilities:

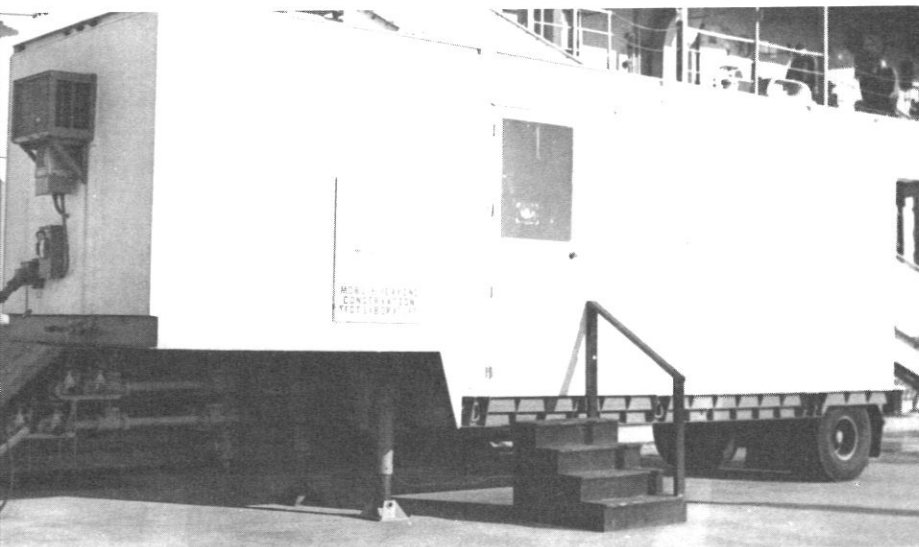
- Line commanders publicize the Navy's Hearing Conservation Program, correct hazardous noise levels, and institute hearing conservation measures where noise hazards exist.
- Navy engineers introduce noise abatement measures when constructing or modernizing shore facilities, and use engineering controls to reduce noise at its source.
- Medical Department personnel establish and run regional hearing conservation programs. Such programs include measuring noise in work areas, warning about noise

hazards, and providing ear protectors and audiometric testing.

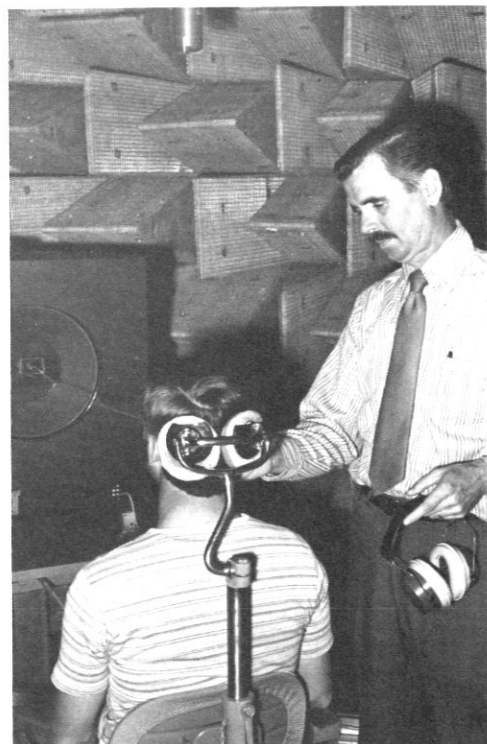
In August 1976 the Surgeon General asked Medical Department facilities to review their audiometric testing services. To make sure that equipment is available throughout the region, the Surgeon General also directed activities offering audiometric services to set up regional audiometer pools where commands can replace defective or uncalibrated audiometers.

**Greatest risk.** While some Medical Department personnel work to prevent hearing loss through audiometric testing and other measures, Navy researchers are trying to pinpoint ratings in which workers run the greatest risk of hearing loss. Acoustical scientists at the Naval Aerospace Medical Research Laboratory are studying hearing loss among 1,800 enlisted personnel in ten ratings where exposure to high noise levels is common: airman,





avy mobile hearing conservation van; right, at the Naval Aerospace Medical Research Laboratory a staff member and test subject evaluate a hearing protective device to determine its suitability for use by Navy members.



fireman, aviation boatswain's mate, boiler technician, aviation machinist's mate, machinist's mate, engineman, aviation structural mechanic, equipment operator, and aviation ordnanceman. Tests of the hearing sensitivity of personnel in these ratings will be compared to a control group of 1,800 enlisted members in relatively quiet ratings: hospital corpsman, dental technician, mess management specialist, yeoman, personnelman, dispersing clerk, training device technician, and aviation maintenance administrator. The study will be finished in mid 1977, according to Ronald M. Robertson, Ph.D., principal investigator. A preliminary finding: the hearing of some people in the control group is as damaged as the hearing of workers exposed to a lot of noise. "More ratings are affected by noise exposure than we thought," Dr. Robertson concludes.

The Naval Aerospace Medical Research Laboratory is not the only Navy research facility investigating hearing loss. As part of a longitudinal study of submariners' health, scientists at the Naval Submarine

Medical Research Laboratory, Groton, are examining audiograms of men who stand watch in submarine engine rooms. So far, results have paralleled Dr. Robertson's findings: people not expected to suffer from hearing loss have been affected.

Researchers at the Groton laboratory also plan to study noise in hyperbaric chambers, where greater-than-normal air pressure changes the way sound moves, and affects the ear's efficiency. "It looks as if there's a loss of sensitivity to sound as you subject the ear to greater pressure," says Paul Smith, a psychologist working on the study. Divers have reported sudden hearing losses after completing a dive; by exploring hyperbaric chamber noises, such as the sounds made by ventilating equipment, scientists at the Groton laboratory hope to find out why.

**Ear protectors.** In the Navy, three types of ear protectors—ear plugs worn in the ear canal, ear caps which occlude the ear canal opening, and ear muffs which cover the entire ear—are issued to people who work with noisy machinery.

Some Navy workers require highly specialized protection: for example, crewmembers who work on carrier flight decks need a telephone headset that protects their hearing while enabling them to understand directions given over the telephone. Navy acoustical scientists in Pensacola worked with the Naval Air Engineering Center to devise a new sound-powered telephone which reduces the amount of noise that reaches the ear while clearly reproducing speech. Model units are now being tested aboard the USS *John F. Kennedy* and USS *Nimitz*.

Another recent advance in ear protection is a comfortable, lightweight ear protector developed at the Naval Undersea Center in San Diego. Originally designed for submarine personnel to wear during sonar operations, the three-ounce ear muff consists of two foam ear covers held in place by a nylon mesh helmet.

But ear protectors are useless if workers won't wear them. Many engine-room workers complain that when they wear ear protectors they cannot hear subtle engine noises

which indicate machinery malfunction. "When a main bearing in an engine starts to go, it makes a very distinctive noise," explains Paul Smith. "But some men complain that with the ear muffs they can't hear these noises." To find out whether there is any truth in this claim, Mr. Smith and his colleagues are testing the hearing of Navy workers who wear ear muffs. While preliminary results indicate that the muffs do not interfere with a person's ability to detect changes in pitch and intensity, it is still not known whether ear muffs prevent the wearer from discriminating between finer differences in sound.

**Field programs.** Medical Department personnel are also working to

improve hearing conservation programs in the field. Among the most promising ideas is a mobile hearing conservation trailer. With this trailer, audiometric technicians at Naval Regional Medical Center Charleston, S.C., visit ships in port and naval shore facilities to test the hearing of Navy members and outfit them with ear protectors.

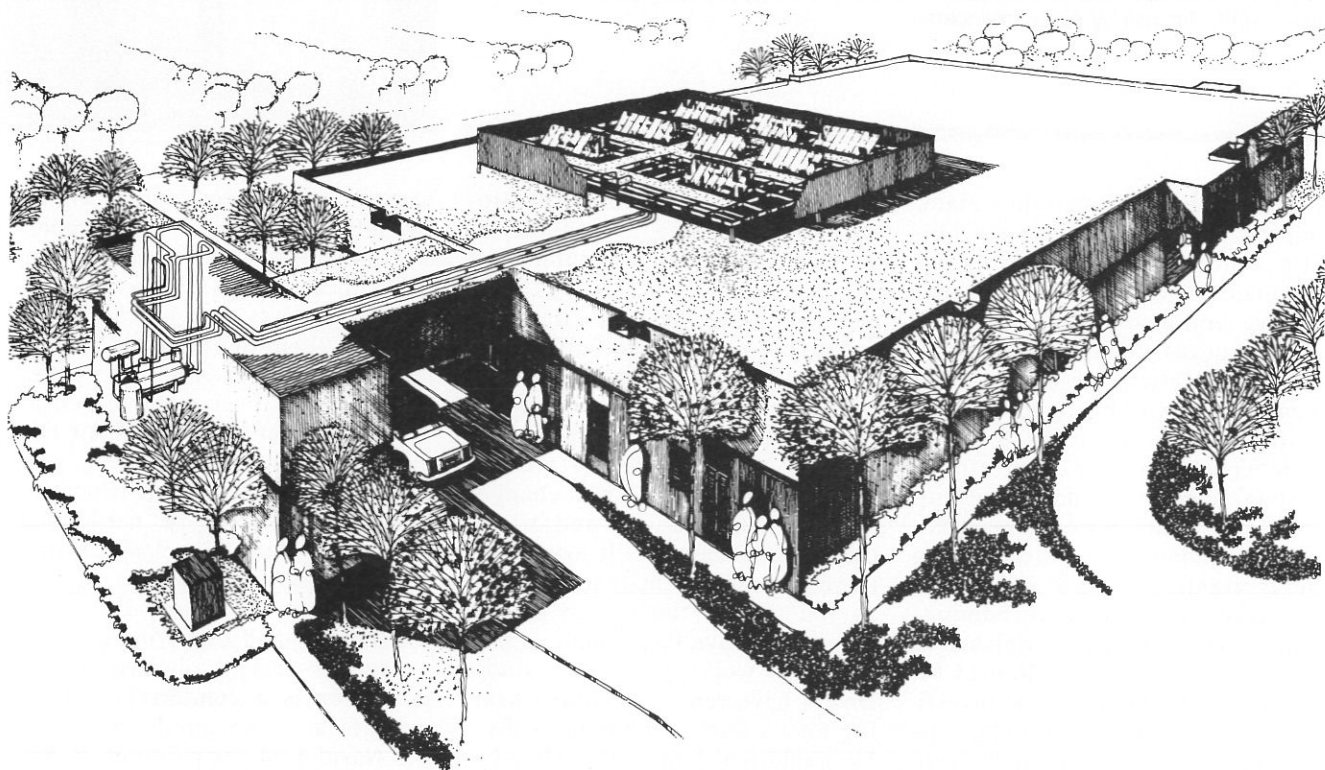
When conducting environmental health surveys, teams of Navy industrial hygienists routinely look for indicators of a good hearing conservation program. Some sure signs:

- trained audiometric technicians.\*

\*The Hearing Conservation Service, Naval Aerospace Medical Institute, trains all Navy audiometric technicians.

- proper audiometric testing and record-keeping.
- analyses of noise in work areas.
- properly calibrated audiometric testing equipment.
- follow-up of people whose hearing is shown in audiograms to be impaired.

Follow-up is the crucial step, according to CAPT Thomas Markham (MC), commanding officer of the Navy Environmental Health Center. Says CAPT Markham: "People who are hard of hearing should be evaluated by a physician to determine the cause of their hearing loss. Not all hearing loss is induced by noise," he warns. "It may be caused by disease, trauma, drugs, or a tumor, and may be treatable."



Proposed solar energy system at Cecil Field

## Cecil Field Going Solar

The first solar energy system in any Navy medical facility will be installed sometime this summer to provide hot water at the new Naval Medical and Dental Clinic, Cecil Field, Fla. The system of solar collectors, water pumps and tanks should be operating by fall, with the clinic's existing heating system serving as a back-up source of heat on cloudy days.

The \$2.2 million Cecil Field clinic, dedicated last December, includes a pharmacy, laboratory, X-ray and physical therapy facilities, administrative offices, and examining rooms for military sick call and outpatient treatment. The dental clinic area has five dental operatories, four oral hygiene treatment stations, and a prosthetic laboratory.

# Puget Sound's Big Gift

Steven Nix is a hemophiliac. Twenty years ago this young Navy dependent would have been forced to lead a sedentary life, fearing that the slightest injury could trigger an episode of intense bleeding.

Today, with dramatic technological advances in the field of blood banking, and supported by the resources of the Navy Blood Program, Steven can enjoy a normal life.

Last June, Steven was the inspiration behind a massive blood drive aboard the USS *Puget Sound*, where his father, CDR H.W. Nix, Jr., SC, USN, is supply officer. CDR Nix's involvement in his son's medical treatment had made him aware of the services offered by the Navy Blood Program, and of the program's constant need for donated blood. So while Steven was under the care of physicians at the National Naval Medical Center (NNMC) in Bethesda, Md., CDR Nix discussed with LT Patrick Monahan (MSC), head of the NNMC Blood Bank, the idea of a large-scale volunteer drive aboard the *Puget Sound*. The idea later won the support of the *Puget Sound*'s commanding officer, CAPT Charles Horne III, who encouraged the crew to participate.

To accommodate such a large donation of blood—from which units can be freely fractionated into components—NNMC Blood Bank technicians transported two 600-lb. refrigerated centrifuges by truck to the *Puget Sound* helicopter hangar bay. The rest of the equipment was flown from the Naval Air Facility at Andrews Air Force Base to Norfolk, Va., where the *Puget Sound* was docked.

*Puget Sound* crewmembers hoisted the bulky equipment aboard, working so carefully that the delicate centrifuges did not require recalibration after the transfer. The crew also took care of the

special electrical hookup required for the complex blood processing equipment.

**Components.** Once the equipment was installed, technicians from the NNMC Blood Donor Center, assisted by corpsmen from Naval Regional Medical Center Portsmouth, Va., began drawing blood. Federal Drug Administration standards require that whole blood which is to be fractionated must be separated within four hours of the time it is donated, and blood plasma must be frozen within six hours of donation. Aboard the *Puget Sound*, screening, procurement and processing of the donated blood was accomplished within two hours. The blood components were then flown to NNMC where further blood group typing and processing was done. Because the shelf-life of several blood components is relatively short, NNMC Blood Bank personnel worked into the early hours of the morning to complete the job.

With the technological advances made over the past decade in separating blood into its many components—plasma, red cells, white cells, platelets, proteins, albumin, clotting factors and cryoprecipitates



NNMC blood bank technicians head for the *Puget Sound* where, below, they undertake a large-scale blood procurement effort.





—three to five patients can now benefit from each unit of donated whole blood. For example, red blood cells, which can be isolated and preserved in a refrigerated state for only 21 days, are screened at the NNMCM Blood Bank and then used to treat anemic patients, or in emergency room, surgical, or transplantation procedures. Blood platelets can only be preserved for 72 hours; they are processed and used

primarily to treat leukemia victims. The other blood components are similarly typed and used in many phases of medical care.

The discovery that changed the life of hemophiliacs like Steven Nix was the identification and isolation of a particular blood clotting factor known as cryoprecipitate, or Factor VIII—the only blood constituent lacking in victims afflicted with classic hemophilia. By separating whole blood into its components and then subjecting the plasma to quick-freezing at -82° Centigrade in a cryoprecipitate bath of alcohol and dry ice, technicians can isolate this important component.

Formerly, victims of hemophilia were subject to bleeding crises which required massive transfusions of whole blood. With the use of Factor VIII in prophylactic therapy, however, they need only administer an injection once every 48 hours to ensure that enough Factor VIII is in their bloodstream to enable blood to clot properly.

While processing blood plasma to isolate Factor VIII has become in-

creasingly popular as an economical and relatively simple treatment of hemophilia, researchers are also investigating the possibility of obtaining Factor VIII by chemical fractionalization, glycine precipitation, or even synthetic production. However, these procedures are still experimental and quite costly.

**Cooperative effort.** Distribution of donated whole blood and blood components within the Navy is coordinated through the Blood Program Management Branch of the Bureau of Medicine and Surgery. This branch oversees the operation of what is believed to be the world's largest regional blood program. Through this Navywide cooperative effort, many Navy medical facilities benefit from large donation projects such as that sponsored by the *Puget Sound*.

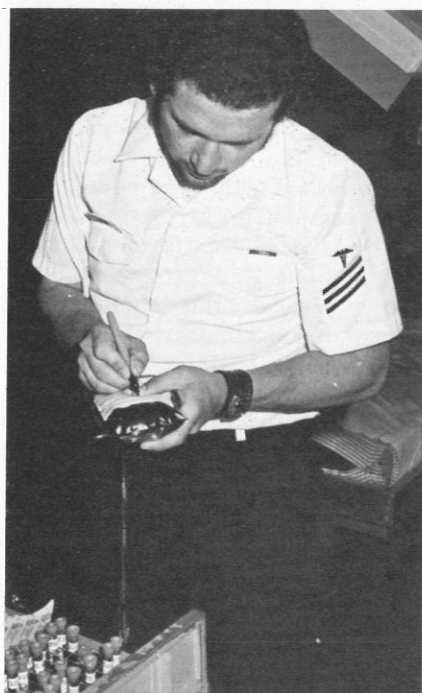
Of the 435 units of blood donated by *Puget Sound* crewmembers, 145 units were collected and used by NRMCM Portsmouth. The remainder went to the NNMCM Blood Bank for further separation and processing, and were then sent to other naval hospitals in the region.

The large volunteer donation also enabled NNMCM to meet urgent needs of other armed forces medical centers. For an emergency at the Walter Reed Army Medical Center, for example, NNMCM was able to provide 30 units of A-positive blood.

With the assistance of the Blood Program Management Branch, 100 units of blood plasma were provided to the Burn Treatment Center at Brooke Army Medical Center in Houston. Another 35 units of blood components went to Malcolm Grow U.S. Air Force Medical Center at Andrews Air Force Base, Md. The NNMCM Blood Bank also cooperates with local civilian hospitals to exchange blood in emergencies.

While the men of the *Puget Sound* volunteered their blood to help the son of a crewmember, their donations—and those of other Navy men and women—are invaluable in treating thousands of people throughout the Navy each year.

—PAO, National Naval Medical Center.



HN Elton Mosher, left, labels a unit of donated blood; below, HN Linda Navarro assists the Puget Sound CO, who donated one of 435 units collected in the drive.





## Nurse Corps

# Introducing CEARP

The Medical Department is developing programs of continuing education for Navy nurses that will meet American Nurses' Association (ANA) national standards for accreditation.

BUMED Instruction 1520.23 of 22 Nov 1976 establishes the Continuing Education Approval and Recognition Program (CEARP) for the Navy Nurse Corps. The program will give commanding officers a way to gain national recognition for Nurse Corps continuing education programs developed in their facilities.

The new program was prompted by growing awareness in the nursing profession of the need to maintain competence, and by action in state legislatures to make continuing education a condition for relicensure.

The CEARP will assure the quality of Navy-sponsored continuing education offerings for nurses, enabling Navy nurses to accrue credit toward relicensure in their home state by participating in programs that meet national standards.

The ANA has set standards for continuing nursing education by establishing a national system of accreditation. Accreditation serves two purposes: It establishes that the educational programs of the accredited organization need no further review to award credit to participants; and it gives the accredited organization authority to approve continuing education offerings of its constituent activities so that they, in turn, may award credit for participation.

The Navy Nurse Corps will seek accreditation of its continuing education approval process as soon as the CEARP is functioning. In the Medical Department, the Naval Health Sciences Education and Training Command (HSETC) will be the recognized approval body once

ANA accreditation has been obtained. HSETC will keep records of each Nurse Corps officer's continuing education accomplishments, and of approved programs offered at Navy medical facilities. A Nurse Corps CEARP review board will meet quarterly to review applications for approval of programs.

The *Navy Nurse Corps Continuing Education Approval and Recognition Program Manual* gives guidelines for planning and implementing continuing education programs and submitting them for approval, and describes the criteria on which approval is based. Continuing education programs for nurses may include:

- short courses and short-term staff development.
- presentations at or participation in health-related professional meetings, courses, or workshops.
- publication of papers, books, and

manuals, and development of audiovisual materials.

- independent or informal study.
- formal academic study. (To obtain recognition for formal academic study, Nurse Corps officers should submit transcripts of their grades directly to their state board of nursing.)

Applications for approval of continuing nursing education programs or offerings may be forwarded to the Commanding Officer, Naval Health Sciences Education and Training Command, Code 7, following procedures set forth in the CEARP Manual. Questions about CEARP may be addressed to the Director, Nurse Corps Programs, Naval Health Sciences Education and Training Command (Code 7), National Naval Medical Center, Bethesda, Md. 20014; or phone (Area code 202) 295-0630, (Autovon) 295-0630.

## Nursing Symposia at NRMC Yokosuka

As more states move to require continuing education credits for relicensure of nurses, Navy medical facilities are expanding their continuing education programs to meet those requirements. U.S. Naval Regional Medical Center, Yokosuka joined the trend with a series of symposia that are reaching not only Navy nurses but Army, Air Force, and even civilian American nurses in Japan.

When CDR Ellen Graves (NC), chief of the medical center's nursing service, first planned the symposia, her idea was to help Navy nurses by augmenting the medical center's in-service nursing education program. But before long other American nurses in the area asked to attend. For civilian nurses, many of whom are dependents of military personnel stationed in Japan, this is their only chance to attend formal continuing education courses.

At the first symposium, presentations covered counseling techniques, listening as a factor in communication, legal aspects of ward management, and the charge nurse's role in staff development. A second symposium dealt with physical and psychological signs of cultural maladjustment. On the drawing board are plans for a tri-service continuing education project to feature health care experts from the Navy, Army and Air Force.



CDR Lois Ewalt (NC) leads symposium

## Policy

# Instructions and Directives

### Exposure to lead in indoor firing ranges

Staff members of indoor firing ranges risk inhaling excessive airborne inorganic lead. An industrial hygiene officer shall evaluate the ventilation, monitoring of airborne lead, and housekeeping at indoor firing ranges at least once yearly. Air samples from the workers' breathing zone shall be analyzed for inorganic lead twice a year. Workers shall never be exposed to concentrations of lead greater than 0.15 mg per cubic meter of air, determined as a time-weighted average exposure for an eight-hour day.

Personnel who work in indoor firing ranges shall have annual medical examinations. Urinary lead levels shall be determined every six months, or blood lead levels once a year; when levels equal or exceed 0.08 mg Pb per 100 g in the blood, or 0.20 mg Pb per liter in the urine, calculated to a specific gravity of 1.024, exposure to lead shall be reduced.

Installation commanders shall keep records of industrial hygiene survey and sampling results, and budget or allocate funds to support the indoor firing range lead hazard control program.

Indoor firing range personnel shall follow protective measures outlined in enclosure (1). Technical assistance is available from industrial hygiene services identified in enclosure (2).—BUMED Instruction 6270.5A of 23 June 1976.

### Armed Forces nutritional standards

This tri-service instruction defines the responsibilities of the Navy, Army, and Air Force Surgeons General in ensuring adequate nutrition for their personnel. The Surgeons General shall:

- establish appropriate nutritional and dietary standards for all personnel.
- guide commanding officers in determining ideal body weights and methods of achieving these weights.
- provide qualified representatives to work with food procurement and food service personnel, recommend adjustments in dietary standards for different physical statuses and environmental conditions, and assist in nutrition education programs.
- survey the nutritional adequacy of the Armed Services diet and recommend changes in this diet, as needed.
- consider requests to deviate from established nutritional standards.

- supervise studies to determine the nutritional status of personnel.

A table of the recommended nutrient allowances for military personnel, with a discussion of some of the nutrients, is provided in this instruction. Factors which affect caloric requirements are also covered.—BUMED Instruction 10110.3E of 30 Aug 1976.

### Cold injury

"Cold Injury," a chapter in the Medical Department's *Technical Information Manual for Medical Corps Officers*, has been revised. Topics covered in the new version include:

- Types of cold injuries and their causes.
- Preventive measures, such as protective clothing and analysis of meteorological data.
- Pathogenic mechanisms contributing to tissue loss from cold injury.
- First aid, emergency medical treatment in forward areas, and definitive hospital treatment for cold injuries.
- Causes, clinical signs and treatment of hypothermia.
- Sensitiveness of people with cold injuries to further exposure.
- Effective temperatures for the combined effect of various wind speeds and air temperatures.

Copies may be ordered from the Naval Publications and Forms Center, 5801 Tabor Ave., Philadelphia, Pa. 19120. Ask for NAVMED P-5052-29 of 30 Sept 1976.

### Dental facility inspections

This instruction provides a tentative schedule, through September 1977, of inspections of BUMED-commanded dental activities, and professional/technical visits to dental departments of non-BUMED-commanded activities. The Inspector General, Dental will give activities specific inspection dates approximately two months before the visit. Inspections of naval regional dental centers will include inspections of all branch dental clinics under the regional center's command.—BUMED Notice 5040 of 13 Oct 1976.

### Enlisted Adviser Program

To provide guidance for enlisted personnel in grades E-1 through E-6, commanding officers shall establish an Enlisted Adviser Program. Chief petty officers shall be designated enlisted advisers, although first class petty officers may be designated when no chief petty officer is available. Master chief petty officers and career counselors shall assist enlisted advisers.

As part of this program, enlisted advisers may:

- Meet regularly with junior enlisted personnel to explain command policy and actions.
- Promote the advantages of a Navy career.
- Ensure that superior performance is recognized and rewarded.

- Counsel enlisted members involved in disciplinary problems, and accompany them to mast.
- Inform enlisted members of training requirements and new training programs.
- Help enlisted members prepare for advancement in rate examinations.
- Provide counsel on personal and financial problems.
- Solicit suggestions on improving patient care and hospital procedures, and forward these suggestions to appropriate officials.—BUMED Instruction 5390.1 of 9 Nov 1976.

### Dental profiles

The Bureau of Medicine and Surgery uses an automatic data processing system to produce profiles of the productivity of each Navy dental facility. Dental profiles are composed of three major statistical measurements: "percent effectiveness" of a dental activity; number of sittings per dental officer; and the ratio of the staff's available work time to the time staff members actually worked. Commanding officers should use these profiles to assess the efficiency of dental care.—BUMED Notice 6620 of 10 Nov 1976.

### Yellow fever immunization

To effectively administer required yellow fever vaccine to prospective Alert Forces personnel, commands shall ensure that Navy and Marine Corps enlisted men receive such vaccine immunizations during the final week of their recruit training, unless vaccination is medically contraindicated. Male students of the Marine Corps Basic School, the Naval Academy, and the Naval Education and Training Center shall be immunized against yellow fever (unless medically contraindicated) during their final week of school. Since women seldom serve with the Alert Forces, they should be immunized only as needed.—BUMED Notice 6230 of 18 Nov 1976.

### Aviation selection tests

The U.S. Navy and Marine Corps aviation selection test is used to select Navy, Marine and Coast Guard students for naval aviator, naval flight officer and air intelligence training. The academic qualification and mechanical comprehension sections of the test are also used as an officer aptitude rating test to select students for non-aviation officer training programs.

Instructions for administering and scoring these tests are given in NAVMED P-5098 ("Examiner's Manual and Scoring Instructions for the U.S. Navy and Marine Corps Aviation Selections Tests"). Page 7 of that manual gives special instructions for testing Officer Candidate School applicants who want to be considered for aviation programs. Qualifying scores for the officer aptitude rating test are established and promulgated by the Navy Recruiting Command and Marine Corps Headquarters.

Scoring keys and test booklets are designated "For Official Use Only"; they must be counted before and after each test session, and locked up when not in use.—BUMED Instruction 1532.1H of 18 Nov 1976.

### Influenza immunization program

This notice discusses currently prevalent influenza strains, and required composition of vaccines and immunization procedures for 1976-1977. A schedule of dosages for active-duty Navy personnel and Navy health care beneficiaries is furnished, and procedures are described for obtaining the consent of non-active-duty patients before they are immunized.—BUMED Notice 6230 of 20 Oct 1976. [Note: The Navy's Influenza Immunization Program is currently suspended indefinitely, pending evaluation of potential neurologic complications.—Ed.]

### Blood typing sera

The Naval Supply Manual, paragraph 22002, requires Navy activities to procure blood typing sera from standard Navy stock items instead of on the open market. This regulation sometimes makes it impossible to satisfy Food and Drug Administration requirements that two *different* sera be used in each blood typing action. To satisfy the FDA requirement, Medical Department activities that operate blood banks are authorized to purchase blood typing sera on the open market, or to use Navy stock sera.—BUMED Instruction 6530.12A of 29 Oct 1976.

### Releasing information from medical records

Department of Defense policy allows qualified medical researchers access to medical records of military personnel. Researchers' requests for medical records will be forwarded for approval to the Special Assistant to the Surgeon General for Medical Research and Development (BUMED Code 0012). Requests shall include the research design and a statement that:

- the privacy of the records will be maintained.
- cases will not be identified by name.
- research results will not be published without BUMED approval.

If these criteria are met, the requested information may be released subject to provisions of the Privacy Act of 1974.—BUMED Instruction (internal) 6150.14G of 19 Nov 1976.

### Report of civilian employment

BUMED-commanded activities are required to submit to BUMED Code 37 a copy of civilian employment reports they prepare each month for the Office of the Comptroller of the Navy. These NAVSO 7410/1 reports are required no later than the 20th of the month after the reported month.—BUMED Instruction 7410.1 of 8 Dec 1976.



# Notes & Announcements

## DR. HAROLD BROWN IS NEW SECRETARY OF DEFENSE

Harold Brown, Ph.D., a former Secretary of the Air Force who has been president of the California Institute of Technology since 1969, has been named Secretary of Defense. His appointment was confirmed by the U.S. Senate on 21 January.

Dr. Brown, who earned a Ph.D. in physics at Columbia University, has held many teaching and research positions and was director of the E.O. Lawrence Radiation Laboratory, Livermore, Calif. He has served as a science adviser on the Polaris Steering Committee, the Air Force Scientific Advisory Board and the President's Science Advisory Board; was senior science adviser at the Conference on the Discontinuance of Nuclear Tests (1958-1959); and was a delegate to strategic arms limitation talks in Helsinki, Vienna and Geneva.

Dr. Brown was director of defense research and engineering for the Department of Defense from 1961 until 1965, when he was named Secretary of the Air Force. He became head of the California Institute of Technology in 1969.



Harold Brown, Ph.D.

## NNMC TO SPONSOR OTOLARYNGOLOGY SYMPOSIUM

A symposium on "Current Therapy for Malignancy of the Oral Cavity and Related Structures" will be held 2-4 June 1977 at the National Naval Medical Center. For details, write to CDR Alan D. Kornblut, MC, USNR, Department of Otolaryngology, National Naval Medical Center, Bethesda, Md. 20014.

## DENTAL CONTINUING EDUCATION COURSES OFFERED IN MAY

These dental continuing education courses will be offered in May 1977:

### *National Naval Dental Center, Bethesda, Md.*

Management seminar (limited to dental officers assigned to the course by BUMED)

9-13 May 1977

### *Eleventh Naval District, San Diego, Calif.*

Periodontics

9-11 May 1977

### *Letterman Army Medical Center, San Francisco, Calif.*

Oral surgery

2-5 May 1977

Requests for courses administered by the Commandant, Eleventh Naval District, should be submitted to: Commandant, Eleventh Naval District (Code 37), San Diego, Calif. Applications for other dental continuing education courses should be submitted to: Commanding Officer, Naval Health Sciences Education and Training Command (Code 5), National Naval Medical Center, Bethesda, Md. 20014. Applications should arrive six weeks before the course begins.

Cross-country travel and travel from outside the continental U.S. generally will not be approved due to funding limitations.

## AIR FORCE CLINICAL SURGEONS PLAN APRIL SEMINAR

The Society of Air Force Clinical Surgeons will offer a postgraduate surgical seminar 17-20 April 1977 at the San Antonio (Tex.) Convention Center. Participants will receive Category I continuing education credit. For more information, contact COL Thomas P. Ball, Jr., Program Chairman, Society of Air Force Clinical Surgeons, Wilford Hall USAF Medical Center (SGHSE), Lackland Air Force Base, Tex. 78236.

## STANDARD FORMATS DEVELOPED FOR MEDICAL BOARDS

Standardized formats for dictating medical board reports on ischemic heart disease and cardiac catheterization patients have been developed at Naval Regional Medical Center San Diego. Prepared paragraphs are stored in a data bank in the medical center's central transcription pool; when dictating the results of a medical board, the physician provides only pertinent information on the patient, instead of creating a report from scratch. The standard formats are available from CDR W.V.R. Vieweg, MC, USN, Director, Cardiac Catheterization Laboratory, Naval Regional Medical Center, San Diego, Calif. 92134.



### **PATHOLOGY COURSES SET FOR MAY**

The Armed Forces Institute of Pathology (AFIP) announces the following courses to be held in Washington, D.C.:

- **Hematopathology**, 4-6 May 1977: a refresher course covering current trends in diagnostic hematologic pathology, particularly morphology.
- **Comparative pathology**, 9-11 May 1977: deals with disease processes found in both animals and man; pathologic lesions and biological behavior of disease organisms in animals and man will be compared.

Although the courses are designed primarily for military and federally employed scientists and health care professionals, civilians will be admitted if space is available. To obtain applications, write to the Director, Armed Forces Institute of Pathology, ATTN: AFIP-EDE, Washington, D.C. 20306.

### **NEW BED SCALE DEVELOPED AT NAVAL ELECTRONICS LABORATORY CENTER**

A hospital bed scale which gives a continuous display of a patient's weight has been developed at the Naval Electronics Laboratory Center in San Diego. The new scale is used when treatment requires constant monitoring of the fluid balance of seriously injured patients, such as those who are severely burned or injured in a motor vehicle accident, sustain multiple injuries, and lose or gain body fluids beyond a safe limit.

In the prototype system, two sensing units containing weight-sensitive strain gauge load cells are placed at each end of the bed. Two digital display units show the patient's current weight and how much he has lost or gained since being placed in the bed. A front panel control ensures that data is not affected when small articles such as pillows and blankets are added to or removed from the bed.



**Prototype hospital bed scale**

### **NEUROLOGICAL SURGERY BOARD WILL GIVE EXAMINATION**

The American Board of Neurological Surgery will give its next oral examination 11-13 May 1977 in Cleveland, Ohio. For more information write to Robert B. King, M.D., Secretary, American Board of Neurological Surgery, 750 E. Adams St., Syracuse, N.Y. 13210.

### **ARMED FORCES OBSTETRICIANS AND GYNECOLOGISTS WILL MEET IN OCTOBER**

The 16th Annual Meeting of the Armed Forces District, American College of Obstetricians and Gynecologists, will convene at the Hyatt Regency Hotel, New Orleans, 9-13 Oct 1977. The Navy section of the Armed Forces District will sponsor this year's meeting and the concurrent 26th annual Armed Forces Seminar on Obstetrics and Gynecology.

Postgraduate courses in gynecologic-oncologic pathology, maternal-fetal medicine and reproductive immunology, and an update of obstetrics and gynecology for nurses will be offered during the meeting. Two special sessions are scheduled: a session for papers on current investigations in obstetrics and gynecology, and a panel discussion on bio-ethical debates in reproductive medicine.

For more information, contact CAPT R.C. Cefalo, MC, USN, 1977 Program Chairman, AFD-ACOG, Department of Obstetrics and Gynecology, National Naval Medical Center, Bethesda, Md. 20014.

### **NEW CARDIOTACHOMETER FROM NELC**

A new, easy-to-use digital cardi tachometer has been designed and a prototype built at the Navy Electronics Laboratory Center in San Diego. When the patient places two fingers of each hand on the two electrodes of the recording circuits, the device will compute the interval from one heartbeat to the next, expressing the heart rate in beats per minute.

### **STRESS IS THEME OF NRMC OAKLAND NURSING CONFERENCE**

How psychiatric nurses can help patients cope with stress was the theme of a five-day conference for Navy nurses, held in November at Naval Regional Medical Center Oakland. Lecturers discussed patients' everyday strategies for coping with stress, and alternative coping mechanisms such as relaxation therapy and bio-feedback; also covered were psychosocial changes that increase stress, maladaptive responses—psychosomatic illness, child abuse, alcoholism, depression, and suicide—and crisis intervention, a tool for helping patients cope with stress.

Speakers included members of the nursing and psychiatric staffs of the medical center, CAPT Richard Rahe (MC) of the Naval Health Research Center, San Diego, and Corrine L. Hatton, R.N., M.N., assistant dean of student affairs for the School of Nursing, University of California at Los Angeles.

# BUMED SITREP

**THYROID DISORDERS . . .** Renewed public interest has recently been generated concerning the increased risk of thyroid disorders in individuals who received X-irradiation or a radium application to the head, neck or upper thorax as infants, children or young adults. Such procedures were accepted medical practice for treating various nonmalignant head and neck conditions in the 1930-1960 era.

Commanding officers of Navy medical treatment facilities should coordinate with local public affairs officers in using available local media to alert members, former members or dependents who may have received such treatment of their increased risk and encourage them to seek medical evaluation.

Eligible beneficiaries may obtain medical evaluation at the uniformed services medical facility where they normally receive care. Former military members and dependents who received radiation therapy in a military hospital but who are no longer eligible for military health care should be encouraged to contact their civilian physician for evaluation.

Copies of DHEW Publication No. (NIH) 77-1120, "Irradiation-Related Thyroid Cancer," have been sent to BUMED-commanded medical activities to guide physicians in the detection, diagnosis, treatment, and followup of eligible beneficiaries who request medical evaluation for this problem. A limited number of extra copies of this publication may be obtained from the Office of Technical Information and Professional Publications, BUMED Code 0010.

**HERE COMES THE SUN . . .** Solar energy systems are in the works at three Navy medical facilities. A solar energy system for heating water will be installed at the new Navy Medical and Dental Clinic, Naval Air Station, Cecil Field, Fla., and should be functioning this fall. Construction begins this summer on the new naval hospital at Orlando, Fla., designed for a solar energy heating and hot water system; the facility will also have solar-powered air conditioning if funding permits. Also designed for solar heat and hot water is the planned replacement medical and dental clinic at Naval Weapons Center, China Lake, Calif.

**ANTHROPOMETRIC STUDIES . . .** BUMED and researchers at the Naval Aerospace Medical Research Laboratory (NAMRL) in Pensacola are involved in the first Navywide effort to make sure that pilots fit their cockpits. Student naval aviators and student naval flight officers entering the Navy's aviation program will be measured at the Naval Aerospace Medical Institute (NAMI) in Pensacola, and their measurements reduced to a four-digit code reflecting their sitting height, buttock-knee length, buttock-extended leg length, and functional reach. This information will be considered when matching crewmembers to cockpits. The goal is to reduce aircraft injuries and accidents which may occur when fliers are assigned to aircraft for which they are too large or too small.

Also participating in this pilot project on anthropometric measurements are the Office of the Chief of Naval Operations, the Bureau of Naval Personnel, the Naval Air Systems Command, and the Chief of Naval Air Training.

**NURSING CONSULTANTS . . .** Nine Nurse Corps officers have been named specialty consultants to the Surgeon General and to the director of the Nurse Corps. Their first job will be to help the Nurse Corps review requirements for

specific nursing billets and identify qualifications which meet those requirements. The new consultants and their subspecialties are: LCDR Dorothy Cronin, Ob/Gyn nurse practitioner and nurse midwifery; LCDR Robert Downs, neuropsychiatric nursing; CAPT Katherine Howard, anesthesia; LCDR Jill Jarrett, neonatal intensive care nursing; CDR Frances Noble, maternal and child health nursing, and pediatric nurse practitioner; CDR Anne O'Connell, family nurse practitioner; LCDR Karen Rieder, community health nursing; CDR Stella A. Ross, medical, surgical, and critical care nursing; and CDR Nancy Tuttle, operating room nursing.

**DENTAL REGIONS . . .** All Navy dental facilities are now regionalized. In the final phase of regionalization, completed last October, naval regional dental centers were established at Yokosuka, Japan, Camp Pendleton, Calif., and Orlando, Fla., bringing the total number of regional dental centers to 22. Also, in that last phase of regionalization, 45 branch dental clinics were placed under the command of regional dental centers.

**AUDIT TIPS . . .** Activities scheduled for an audit should review their procedures for monitoring linen supplies. Linen carts and lockers must be secured and locked except when linen is issued or received. BUMED Instruction 6770.2B requires linen committees to meet at least quarterly to evaluate linen management and recommend any needed changes. Informal property surveys of linen supplies must be made and accurate records of these surveys kept.

**DENTAL CARIES TEST . . .** Researchers at the Naval Dental Research Institute, Great Lakes, Ill., have developed a 24-hour test to determine the presence of decay-producing *Streptococcus mutans* in samples of dental plaque removed during a dental examination. The test helps to determine the degree of infection and to locate the exact sites on the tooth where bacteria have colonized. Details on the dental caries susceptibility test are available from the Commanding Officer, Naval Dental Research Institute, Great Lakes, Ill. 60088.



## Scholars' Scuttlebutt

# Restructuring the GME-1 Year

While there are many gratifying indications that most of our scholarship participants know and understand the initiatives the Medical Department is taking in graduate medical education, restating our goals and plans may clear up the few remaining areas of misunderstanding.

The goal of the Medical Department's education and training program is the complete professional development of Medical Department members. This includes formal internships, residencies and fellowships. But assignments, continuing education programs and refresher training are also a part of lifelong learning.

One of the planned changes in Navy graduate medical education is based on the concept of learning through assignments: students completing the GME-1 year of training will in all likelihood be assigned to operational billets for at least one year before they reenter formal graduate education. We think that interrupting training after the GME-1 year is far less disruptive to professional development than assigning a fully trained specialist to an operational billet which does not require that degree of expertise. The fact that many young physicians change their career plans during the first postgraduate year further supports the wisdom of a break between the first year and further graduate education. Our new plan, which resembles the work-study mode of education used in many professions, has been approved by the American Medical Association's Liaison Committee on Graduate Medical Education.

We feel that the unique requirements generated by the Navy mission are not incompatible with sound professional development; on the contrary, it is just such varied

opportunities that expand the range of choice for our physicians.

Another planned change in Navy graduate medical education reflects our concern about the lack of enough Navy GME-1 positions to accommodate all graduating scholarship students. Students who are not selected for Navy programs may apply for a full deferment or may be deferred for only one year. However, under the rules of the scholarship program, we can grant full de-

ferments for specialty training in civilian institutions *only* if there is no Navy training program available in that specialty, and even then only if the Navy has a projected need for the specialist's skills in the year in which training would be completed. The Navy's need for general medical officers to support operational requirements is paramount and, as a result, opportunities are severely limited for full deferment.

We recognize the difficulty facing students who are not selected for Navy GME-1 positions, since there are few good one-year positions in the civilian sector. To partially solve the problem, we hope to increase the number of Navy GME-1 training positions in the summer of 1978.

## USUHS On Tour

The 32 members of the Uniformed Services University of the Health Sciences charter class recently participated in military orientation activities. They visited four Army, Navy, and Air Force installations, where they participated in military training exercises and were introduced to the medical problems they'll handle as military physicians. The charter class entered the USUHS School of Medicine last October.



**ENS John Pedrotty, above, checks out a frogman's gear at Little Creek Naval Amphibious Base; below, officers of the USS Charles F. Yarnell brief USUHS students during their visit to Norfolk.**





## Clinical Notes

# A Short Guide to Bacterial and Viral Infections in Children

LT Richard K. Reed, MC, USNR

The fevers commonly encountered by primary care physicians who see children as outpatients are usually caused by viruses. Because in everyday clinical practice no antiviral chemotherapy is used, most fevers in children are managed by treating only the symptoms. This brief summary of viral and bacterial infections in children may serve as a reminder to use antibiotics judiciously.

Invasion of the upper respiratory system by infectious agents is the most common cause of fever in children: rhinovirus, respiratory syncytial virus, adenovirus, and influenza virus may all enter the respiratory epithelium. Children suffering from these viruses present with rhinorrhea, sore throat, sneezing, malaise, and irritability, as well as fever; coughing, except as a reaction to postnasal drip, is not part of the syndrome since it originates in the lungs—the lower respiratory tract.

On physical examination, children with upper respiratory infections may display fever, lassitude, and perhaps active rhinorrhea, but few other irregular findings. Routine laboratory tests are generally not needed. The symptoms may be treated with fluids, antipyretics, and if warranted, combinations of antihistamines and decongestants.

Upper respiratory infections can lead to otitis media if the eustachian tube becomes blocked, allowing secretions to accumulate in and infect the middle ear. Neither redness of the tympanic membrane (hyperemia) nor loss of the light reflex is a strict criterion for the diagnosis of otitis media. The surest sign of this middle ear infection is that the malleolar lateral process cannot be seen because the pars flaccida—Shrapnell's membrane—is distended. Other important signs are air-fluid levels and bubbles behind the tympanic membrane, and decreased movement of the eardrum when the patient performs the Valsalva maneuver or is examined with a pneumatoscope.

Otitis media usually results from bacterial infection, most commonly from *Diplococcus pneumoniae* and—in approximately 20% of affected children under age 5

years—from *Hemophilus influenzae*. Antibiotics are the preferred treatment, with ampicillin in a daily dosage of 75-100 mg/kg of body weight recommended.

Antihistamine-decongestant combinations may be used as an adjunct to therapy to decompress the eustachian tube. Nose drops are of dubious value. For children allergic to penicillin, use of erythromycin or an erythromycin-sulfa combination may help. In children over the age of 5 years, *H. influenzae* is a less important pathogen and penicillin alone may be used. But a child should never be given antibiotics just because he exhibits hyperemia and injection of the tympanic membrane, for these conditions are not reliable diagnostic criteria for otitis media: they can result from fever itself, or from crying, allergy, viral myringitis, or adenoidal hypertrophy with subsequent partial blockage of the eustachian tube. What looks like hyperemia may even be the normal color of the child's eardrums, requiring no treatment at all.

Although infection of the paranasal sinuses by bacteria occurs only infrequently, it almost always produces fever. In newborns, the maxillary sinus is rudimentary and very small. Then, when the child is about 3 years old, a rudimentary frontal sinus appears (1). Prolonged, purulent nasal discharge may mean that these sinuses are infected, and that the child has sinusitis.

### OTHER INFECTIONS

Viruses are notorious for causing tonsillopharyngitis in children. The adenovirus usually causes conjunctivitis and may cause tonsillar exudation and cervical adenopathy. Infectious mononucleosis may cause a membrane to form in the pharynx, similar to the membrane caused by diphtheria.

The main agent of bacterial tonsillopharyngitis is the Group A beta-hemolytic *Streptococcus*. Streptococcal sore throat is rare in children under the age of 1 year, and not common until after the child's second year. After "Strep throat" has been diagnosed by a throat culture on sheep blood agar plates, the treatment of choice is benzathine penicillin.

Fever can also be caused by laryngotracheobronchitis, an infectious croup syndrome. Other symptoms:

LT Reed is with the Naval Regional Medical Center Long Beach Branch Clinic, Naval Weapons Center, China Lake, Calif. 93555.



stridor, hoarseness, a brassy cough, and chest pain from the trachitis. This viral syndrome is treated without antibiotics; croup tents and racemic epinephrine inhalation are often used. Croup syndrome *without* fever should alert the physician to look for an aspirated foreign body, congenital vascular ring, bronchial wall cyst, or papillomatosis of the vocal cords.

Acute epiglottitis, an emergency condition usually caused by *H. influenzae*, often requires tracheostomy because of an edematous glottis that can occlude the larynx.

Coughing is produced when an infection involves the lower respiratory tract. The most common affliction is a viral bronchitis. If a child shows clinical signs of toxicity or produces purulent sputum, a chest roentgenogram and blood count are indicated. Antibiotics may be used to treat lobar pneumonia but not viral pneumonia, usually represented by a patchy, diffuse infiltrate. Granulomatous pulmonary disease, which may also produce cough, may be overlooked unless appropriate skin testing is performed.

Most infections of the gastrointestinal tract are caused by viruses. Gastrointestinal viruses can usually be differentiated from bacteria by the severity of symptoms (vomiting, diarrhea, and abdominal pain); the results of stool cultures and blood counts, and an examination of the stool for white cells will also help establish the diagnosis. While physicians disagree on whether to treat *Shigella* infections with antibiotics, most of them believe that antibiotics are not appropriate for *Salmonella* because a carrier state may be produced and resistant organisms may develop. Dehydration and electrolyte imbalance may result from excessive fluid loss following vomiting and diarrhea. The first consideration in treating this potentially serious complication is to prevent this deficiency with a clear liquid diet for 18 to 24 hours.

When no source of infection can be found in a feverish child, a urine analysis is mandatory: urinary tract infection, including pyelonephritis, may be present without dysuria, frequent urination, or flank pain. Bacteria cause most urinary tract infections, while viruses usually infect other body systems.

Childhood meningitis, a serious infection, may be caused by bacteria or viruses. Bacteria such as *Diplococcus* or *Hemophilus* may be implicated; however, in very young children, especially children under the age of three months, *Escherichia coli* and *Salmonella* may also cause meningitis (3). The patient with acute bacterial meningitis presents with fever, headaches, nausea, stiffness of the neck in flexion and extension movements, and positive Kernig's and Brudzinski's signs. However, children with a mild case of meningitis or in the early stage of the disease may present with only fever and mild headache. In the child under 1 year of age other signs must be sought, such as a bulging anterior fontanelle, excessive irritability, alternating periods of irritability and lethargy, and a

high-pitched cry (2).

To evaluate fever in a sick child who presents without an obvious source of infection, a white blood cell count and blood differential, urine analysis, and chest roentgenogram may be performed. If these tests reveal only an elevated white blood cell count in a child who looks ill, meningitis must be considered. A good rule of thumb is that fever and excessive irritability in a child less than 1 year old, in whom no obvious source of infection can be found, should raise the question of meningitis. Meningitis is diagnosed by analyzing spinal fluid obtained from a lumbar puncture.

Physicians often encounter the feverish child who has no obvious source of infection but who does not appear ill enough to require a spinal tap. On the other hand, the physician may encounter the child who is quite ill but whose spinal tap produces negative results. In both cases, excluding the possibility of septicemia in a child with a toxic reaction, viral illness can usually be diagnosed. The only treatment required is to prescribe antipyretics and continue observations. If the fever persists or recurs, the physician must think of such possibilities as juvenile rheumatoid arthritis, collagen-vascular diseases, rheumatic fever, malignant tumor, or occult abscess.

Some physicians believe they are justified in using antibiotics to obviate a bacterial complication or to cure an inadvertently overlooked infection. But antibiotics should not be used to treat an infection caused by a virus: there is no evidence that antibiotics prevent secondary bacterial invasion, and they may even obscure a more serious infection. For example, when oral antibiotics are given to an outpatient with undiagnosed meningitis, the subsequent spinal fluid findings could indicate either viral meningitis or only a partially treated bacterial infection.

## SUMMARY

When a child presents with a fever, a careful history must be obtained and a complete physical examination performed. Infections of the respiratory tract are most common, and viruses the commonest cause of such infections. Only the symptoms should be treated. A diagnosis of otitis media should be made only if the ears meet diagnostic criteria described above. Antibiotics should not be used as precautionary or prophylactic measures for an illness caused by a virus.

## REFERENCES

1. Ruben RJ: The nose, paranasal sinuses, and pharynx, in Barnette HL (ed): *Pediatrics*, ed 15. New York: Appleton, Century, Crofts, 1972, pp 1871-1874.
2. Hughes JG (ed): *Synopsis of Pediatrics*, ed 3. St. Louis: C.V. Mosby, 1971, pp 359-407.
3. Weinstein L: Common sense (clinical judgment) in the diagnosis and antibiotic therapy of etiologically undefined infections, in Alvin RC (ed): *Primary Care*. Philadelphia: W.B. Saunders, 1974, pp 501-518.

## Professional

# Child Advocacy at Naval Regional Medical Center Portsmouth, Va.

CDR Thomas Lohner, MC, USN

The problem of child abuse and neglect is heightened in the military population because of factors common to military service, including:

- financial burdens of junior enlisted members.
- frequent family separations.
- isolation from hometown friends, family and relatives, leaving parents no support in times of stress.
- frequent moves, preventing parents from establishing roots and learning about community resources.
- high incidence of alcoholism.
- limited mental health services at many naval medical facilities.

Of paramount importance is one factor seen in most child abusers: they were themselves abused as children, and did not learn how to care for children properly. In child abuse cases, pediatricians often see an absent or passive, nonsupporting spouse, or parents with low self-esteem who expect too much of their children at various ages; also often seen are children who are either viewed as different or are indeed different because they were born prematurely, have birth defects, or are hyperkinetic. Usually some major or minor crisis precipitates the abuse.

In January 1975, Naval Regional Medical Center Portsmouth, Va., founded a Child Advocate Committee to deal with child abuse and vulnerable children in the local military community. The Committee's purposes are:

- to define the magnitude and scope of the child abuse problem among people served by the medical center.
- to secure trained personnel to work with abused and vulnerable children.
- to process all documented or suspected child abuse patients seen at the medical center—assuring and coordinating medical, social service, and psy-

chiatric care, as well as appropriate follow-up; and working with legal, social service, and law enforcement authorities when indicated.

We define a vulnerable child as a child who has suffered from one or more of the following: physical abuse, neglect, emotional deprivation, failure to thrive, significant burns, repeated minor trauma, repeated drug or toxin ingestion, unexplained developmental delay, many "accidents," physical injury unexplained by case history, emotionally disturbed or distraught parent, repeated clinic or emergency room visits for minor or vague complaints, an intellectually subnormal parent, or sexual abuse by a family member.

In its first year of operation, our Committee handled 110 referrals. Of these, 75% involved physical abuse, while the remainder involved neglect, emotional abuse and deprivation, and other problems. In the three or four years before our Committee was set up, only 25 such patients had been detected each year among our beneficiaries.

While most referrals come from military medical and paramedical personnel within the region, many patients are referred by civilians. In a few cases, parent-abusers have referred themselves. We often sponsor lectures and discussions on child abuse to teach people how to identify vulnerable children and get help for them.

I serve as Committee chairman.\* Other members include the chief of pediatrics, the Committee's vice chairman, two staff pediatricians, a Navy chaplain, one representative each from the Nursing, Orthopedic, Pediatric Surgery and Psychiatry Services, the medical center's legal officer, and a psychiatric

\*I also head the Tidewater Professional Task Force on Child Abuse, a team of professionals in several fields who meet regularly in an effort to improve the detection, treatment and surveillance of child abuse cases in the area (Portsmouth, Norfolk, Chesapeake, and Virginia Beach). This collaboration of military and civilian professionals enhances communication between the local agencies that deal with child abuse and neglect.

CDR Lohner is chairman of the Child Advocate Committee and a member of the Department of Pediatrics at Naval Regional Medical Center, Portsmouth, Va. 23708.

social worker. A nurse from the Navy Relief Society and a Red Cross social worker also lend support. CDR Phyllis Barkus (NC), a pediatric nurse practitioner, is the Committee's coordinator.

The Committee meets once a month to discuss patients: diagnosis, child's condition, psychodynamics of the case, and possible therapies. Informal sessions are held frequently. Child advocate clinics are held twice a month under the direction of the Committee's pediatricians to evaluate and follow up vulnerable children and their families.

Our management of child abuse and neglect resembles most other child advocacy programs: it is helpful, rather than punitive. Sometimes the only way to help is to separate the child from his family. In up to 15% of our patients the child's guardian has been so emotionally disturbed that removing the child from the home has been the only solution.

Many abused children referred to the Committee are hospitalized immediately, not only for medical reasons but also to prevent further harm. A child is not discharged until release is medically indicated and family therapy has begun. A pediatrician is on call 24 hours a day for patient referrals.

## CASE REPORTS

While each case of child abuse or neglect is unique, all are evidence of family breakdown and are marked by human suffering. These three brief case reports illustrate the range of situations our Committee has dealt with:

**Case 1.** A 23-year-old white female, mother of two girls aged 17 months and 10 weeks, was referred to our Committee by a nurse practitioner. The mother was emotionally distraught and felt she might injure her elder daughter whom she had occasionally spanked "too hard." The father had left six weeks earlier on a six-month cruise. Reacting to the combined stress of an absent father and competition from the new sibling, the 17-month-old girl cried often, had temper tantrums and demanded constant attention.

Coping with this situation became increasingly difficult for the mother, who never had time away from the children and had no

family or close friends in the area. She came from a large family and had not been abused as a child. She had a good marriage, but had always been dependent on her husband.

The mother was counseled frequently in the clinic and referred to the local chapter of Parents Anonymous, a self-help group for child abusers. She was told to call us at once if she felt she was losing control. After arrangements were made for a babysitter, the mother was able to take time for herself and was soon coping confidently and maturely with her children. She was seen periodically in follow-up counseling until her husband returned, after which she had no further need for our service.

**Case 2.** A 3-month-old white female was referred because she was eating poorly, vomiting, and not thriving. There was no apparent organic cause for these disturbances. A 3-year-old male sibling in the home had rubella syndrome and sensorineural deafness. An interview with the family revealed that the parents had had marital difficulties the year before and had been on the verge of separating. But their problems were subsequently solved, and when we saw the child the marriage was stable. However, during the difficult period the father had had an affair with another woman who became pregnant with this child. When the child was born, her biological mother refused to keep her and the wife agreed to accept the baby because of religious convictions and loyalty to her husband. She found, however, that she could not love the child—in fact, that she hated the child, who was a constant reminder of her husband's previous infidelity and of her own imagined inadequacies as a wife. After the mother was allowed to ventilate her emotions, she came to understand that her feelings were natural and nothing to feel guilty about. Through counseling, the father gained insight into his wife's predicament. With the agreement of everyone concerned, the child was placed in foster care and subsequently adopted, and relative peace was restored to the family.

**Case 3.** The patient was a 13-year-old white male, in the eighth grade, who for the previous two years had done poorly in school. He was accompanied to the medical center by his stepmother, who was apparently a stable, caring person. She had brought the family's problem to the attention of local social service authorities.

The patient had a 13-year-old sister who did well in school but had many psychosomatic complaints, and a 9-year-old sister who was developmentally retarded due to emotional deprivation. The patient—an amiable, pleasant, communicative young man—related that his father was frequently abusive and violent, often "going berserk" with anger. The patient described his father's violent acts against him, his two sisters and his stepmother, and the father's sexual abuse of the younger sister. The stepmother had a child of her own from a previous marriage but this child appeared to be well protected. The stepmother, who had married the father eight months previously, had initiated divorce proceedings and hoped to obtain custody of all the children. For four years prior to the marriage the children lived with their father and paternal grandmother (now deceased), an extremely cruel person who inflicted bizarre punishments on them. Recently the patient had run away three times for short periods to escape his father's cruelty. All three children voiced a strong desire to leave their father, who was shown on psychiatric evaluation to be a borderline psychotic with a tendency to react violently. The patient and his siblings were found to be in good physical health, but needed mental health care. Based on our evaluation, the father's parental rights were severed and the children were placed in foster homes. The psychiatric help they need will be provided.

### Child Advocate Committee meets at NRMCM Portsmouth





# Causes of Hospitalization of Active-Duty Personnel, 1974

CDR L.J. Melton III, MC, USN  
Louis P. Hellman, Sc.D.

One of the Navy Medical Department's most important contributions to operational readiness is to neutralize risks to the health of active-duty Navy and Marine Corps members. The first step in minimizing these risks is to identify them.

In the past, the Medical Department combated the obvious problems: water-borne enteric disease among Marines in the field, shipboard outbreaks of influenza, meningitis epidemics at recruit camps. But as medicine and military operations became more complex, the Navy could no longer rely on haphazard identification of major diseases, and systematic epidemiological analyses have become important in identifying health risks in the military.

In this paper, we report a preliminary analysis of the illnesses that led to hospitalization of Navy and Marine Corps active-duty personnel in 1974. By reporting these data, we hope to provide a basis for discussing priorities and strategies in controlling serious illness and limiting noneffectiveness in the Navy.

## METHODS

Most of the following data were derived from a provisional list of dispositions of active-duty Navy and Marine Corps personnel treated in Navy medical facilities during 1974. The figures, provided by the Naval Medical Data Services Center, do not include admissions of Navy members to other military hospitals or to civilian hospitals. Some causes of hospitalization may therefore be underestimated, but the omissions probably do not alter the relative importance of the disease categories.

CDR Melton is head of the Epidemiology Section, Disease Analysis and Control Branch, Occupational and Preventive Medicine Division, Bureau of Medicine and Surgery, 2300 E St. N.W., Washington, D.C. 20372.

Dr. Hellman is technical director of medical statistics for Naval Medical Data Services Center, National Naval Medical Center, Bethesda, Md. 20014.

Data on hospitalization of Army and Air Force active-duty personnel in 1974 were provided by the offices of the Surgeons General of those services. Information about civilian hospitals is from the National Center for Health Statistics (1).

## RESULTS

Specific diseases diagnosed among active-duty naval personnel hospitalized in 1974 were grouped into 18 major categories, following the *International Classification of Diseases, Adapted* (2). These 18 categories were then ranked according to the frequency with which they appeared among Navy and Marine Corps members (Table I).

The most common diagnostic group in 1974 was "Accidents, Poisoning and Violence," followed by "Mental Disorders." Together, these categories accounted for almost a third of all diagnoses reported by Navy medical facilities. Other categories were progressively less important.

The relative importance of the categories was basically the same in the Marine Corps as in the Navy. However, the actual incidence of different disease classes varied: in all but three classes, the Navy reported more admissions per 1,000 average strength than the Marines. Naval personnel also had a greater total hospital admissions rate than did the Marines. In most disease categories, the Navywide incidence was greater than the incidence for shipboard personnel only; however, shipboard personnel had proportionately more admissions for accidents and mental disorders than did Navy members altogether.

When the individual diagnoses within each of the 18 major categories were evaluated, the same patterns were evident. Relatively few diagnoses accounted for a substantial proportion of the admissions, and the same problems were prominent (Table II). Nine of the top 20 specific diagnoses leading to hospitalization represented trauma, and another 3 represented mental disorders. It should be noted here, however, that the category "alcoholism"



**TABLE I. Relative Importance of the 18 Major Categories of Illness Diagnosed Among Active-Duty Navy and Marine Corps Personnel, 1974**

Disease Category*	Incidence per 1,000 people per year
Accidents, Poisoning and Violence	31.2
Mental Disorders	19.2
Diseases of the Respiratory System	17.3
Diseases of the Digestive System	13.7
Diseases of the Musculoskeletal System	13.6
Infective and Parasitic Diseases	9.7
Symptoms and Ill-defined Conditions	9.6
Diseases of the Skin and Subcutaneous Tissue	9.4
Diseases of the Genitourinary System	8.6
Diseases of the Circulatory System	6.2
Diseases of the Nervous System and Sense Organs	5.7
Supplementary Classifications	4.9
Neoplasms	2.5
Endocrine, Nutritional, and Metabolic Diseases	2.4
Congenital Anomalies	2.1
Complications of Pregnancy and Childbirth	1.0
Diseases of the Blood and Blood-forming Organs	1.0
Certain Perinatal Diseases	0
<b>Total</b>	<b>158.1</b>

\*According to *International Classification of Diseases, Adapted*

probably does not indicate the true incidence of this medical problem, but rather reflects growing support for the Navy alcoholism control program. Three of the 20 conditions involved surgery, and 3 more (not counting "cellulitis and abscess") resulted from infectious diseases. The remaining category was composed of dental problems. In listing these 20 most prominent individual diagnoses among hospitalized personnel, we included only specific groups because we believed that "wastebasket" categories such as "all other diseases of the respiratory system" could not be interpreted.

Next we ranked the 18 major disease categories in order of how long the victims were hospitalized (Table III). The two leading causes of inpatient non-effectiveness were "Accidents, Poisoning and Violence" and "Mental Disorders," which together accounted for 40 % of days lost through hospitalization. Other categories appear in much the same order as in Table I. Sixteen of the 20 leading specific diagnoses resulting in noneffectiveness (not shown) were among the 20 most common specific diagnoses previously displayed in Table II.

## DISCUSSION

These data deal only with risks that result in hospitalization of active-duty personnel. Outpatient data might give a different picture of the relative importance of various diseases. Also, the 1974 data reflect a peacetime environment: the incidence of some

**TABLE II. Twenty Most Common Individual Diagnoses Among Hospitalized Active-Duty Navy and Marine Corps Personnel, 1974**

Diagnosis	Number
Cellulitis and abscess	3,571
Pneumonia	3,497
Alcoholism	3,336
Acute upper respiratory tract infections	3,133
Inguinal hernia	2,979
Fracture of lower limb	2,660
Sprains and strains	2,369
Intracranial injuries (excluding skull fracture)	2,012
Dental diseases and conditions	1,786
Fracture of upper limb	1,692
Internal derangement of joint	1,686
Transient situational disturbances	1,675
Dislocation without fracture	1,665
Contusion and crushing	1,602
Schizophrenia	1,332
Laceration of head, neck or trunk	1,192
Infectious hepatitis	1,182
Fracture of face bones	1,137
Acute appendicitis	1,135
Pilonidal cyst	1,062

**TABLE III. Relative Contribution of the 18 Major Categories of Illness to Noneffectiveness Among Active-Duty Navy and Marine Corps Personnel, 1974**

Disease Category*	Noneffective Days
Accidents, Poisoning and Violence	476,853
Mental Disorders	288,424
Diseases of Musculoskeletal System	278,901
Diseases of the Digestive System	168,367
Diseases of the Respiratory System	104,571
Infective and Parasitic Diseases	102,208
Diseases of the Circulatory System	85,847
Diseases of Skin and Subcutaneous Tissue	78,086
Diseases of the Nervous System and Sense Organs	72,362
Symptoms and Ill-defined Conditions	63,042
Diseases of the Genitourinary System	52,918
Neoplasms	50,671
Congenital Anomalies	34,503
Endocrine, Nutritional, and Metabolic Diseases	26,430
Supplementary Classifications	19,761
Diseases of the Blood and Blood-forming Organs	7,018
Complications of Pregnancy and Childbirth	6,148
Certain Perinatal Diseases	0
<b>Total</b>	<b>1,916,110</b>

\*According to *International Classification of Diseases, Adapted*

categories, such as "Infective and Parasitic Diseases," might increase during mobilization or conflict. Keeping these reservations in mind, we can consider the implications of the data.

Let us first put inpatient morbidity in perspective. Some 90,000 Navy and Marine Corps members were hospitalized in 1974—about 12% of the active-duty population, assuming an average active-duty force of 735,000 that year. Thus almost 90% of the active-duty force was *not* admitted to a medical treatment facility in 1974. Also, although the 90,000 hospitalizations resulted in more than two million days lost from duty, that was only 0.7% of the total available man-days. Nevertheless, 90,000 admissions and two million days of lost productivity are still a substantial drain on Navy manpower.

The data show that only a few medical problems accounted for most of the hospitalizations. These problems—accidents, respiratory and other infections, some mental problems, and surgically correctable conditions such as appendicitis and hernia—can be expected in any population, such as the Navy, where most members are less than 30 years old.

The relative importance of the various disease groups was similar for each Navy community we investigated. In other words, while the actual incidence of any given condition may have varied, all of the operational groups seemed to be experiencing the same major problems.

When we compared Navy data with data on hospitalization of civilians and of Army and Air Force personnel, we found that the relative incidence of the 18 major disease classes was similar. When categories involving mostly females—"Complications of Pregnancy and Childbirth" and "Diseases of the Genitourinary System"—were removed, the top five disease classes among inpatients 15 to 44 years old who used "short-stay" civilian hospitals in 1972 were the same as the five most common diagnostic classes among Navy members. Likewise, of five disease classes most frequently reported by the Air Force in 1974, four were also among the Navy's top five disease classes; the Army shared three of the top four Navy disease categories in 1974.

If the data in Table II are classified by etiology rather than by organ system, we find that at least 13 of the top 20 causes of hospital admissions in 1974 were behavioral phenomena—including accidents and mental disorders. Other diseases, such as infectious hepatitis and cellulitis, may have had strong behavioral components. Thus few of the major causes of Navy and Marine Corps morbidity are likely to be controlled by traditional preventive meas-

ures directed at modifying the environment rather than at changing people's behavior. Many environmental intervention programs, such as immunization and sanitation efforts, have been successful, but programs to change health-related behavior have been much less effective. Poor response to the national campaign against smoking is one example.

No genuinely successful, large-scale prevention program, with the possible exception of our preventive dentistry program, is attacking the major causes of Navy and Marine Corps morbidity shown in our analysis. The fact that the civilian community also lacks effective preventive medicine programs in these areas is not a great consolation. Even our sketchy information is enough to suggest that in the future we must reevaluate our strategies and priorities for neutralizing risks to the health of members of the operating forces. More detailed analyses will soon provide better data on which to base our decisions, but it is not too soon to think about the problems.

## SUMMARY

The data in this report reflect the impact of hospitalization on active-duty Navy and Marine Corps personnel in a peacetime environment. Almost 90% of the active-duty force was not hospitalized in 1974, and less than 1% of available man-days was lost to inpatient noneffectiveness. Most of the 90,000 hospital admissions and two million noneffective days that occurred in 1974 were caused by a very few conditions, predominantly accidents and mental disorders. The distribution of diseases was not surprising for a population composed mostly of young males. The Navy and Marine Corps reported the same major diseases, and other military services and the civilian community had the same major disease problems as the Navy and Marine Corps. Many of the principal sources of morbidity were behavioral conditions which cannot be corrected by environmental manipulations. Reevaluation and innovation are needed to deal with these risks.

## REFERENCES

1. *Inpatient utilization of short-stay hospitals by diagnosis, United States, 1972*. Vital and Health Statistics, series 13, no. 20. U.S. Department of Health, Education and Welfare, Public Health Service, National Center for Health Statistics. Washington, D.C.: Nov 1975.
2. *International Classification of Diseases, Adapted*. U.S. Department of Health, Education and Welfare, Public Health Service, National Center for Health Statistics, publication 1693. Washington, D.C.: 1968.

# Independent Duty

## Toothache Diagnosis and Treatment

LCDR William S. Hwang, DC, USN  
LT Frank Aker, DC, USNR

The most common dental emergency is pain—anyone who cares for patients in the field or in isolated areas has undoubtedly come across this problem. In this paper, we will identify the most common causes of tooth pain and discuss simple treatment procedures which independent duty corpsmen can administer if a dental officer is not available. By using a three-part checklist—diagnosis, treatment, and follow-up—you can relieve a patient's dental pain in most cases.

### CAUSES OF DENTAL PAIN

The causes of dental pain can be divided into three categories:

- Reversible pulpitis—a reversible inflammation of the pulp (tooth nerve). Reversible pulpitis can be caused by advancing decay when the pulp is still vital; the pulp can return to a normal condition when the decay is removed and the tooth restored. Or, a restoration that is large and deep can make the tooth hypersensitive and cause a pulpitis that is reversible; the hypersensitivity of the tooth can decrease as the repair process takes place.
- Irreversible pulpitis—an irreversible disorder of the pulp which requires root canal treatment or extraction of the tooth. Any condition

which causes reversible pulpitis can cause irreversible pulpitis if the patient's tooth is irritated enough.

- Acute apical abscess—a sequel to untreated pulpitis, or to pulp disease that did not respond to treatment. This condition is treated by a root canal procedure or by extracting the tooth.

### DIAGNOSIS

As in any diagnosis of a health emergency, a history of the patient's present complaint is of utmost importance. When taking the patient's history, ask the patient the questions in Table I. Then compare the patient's responses with the chart to determine the emergency condition (named at the top of the column).

In most dental emergencies, the patient can identify the troublesome tooth, but in cases of reversible pulpitis, he may not be able to identify the tooth that is bothering him. It is necessary to perform the diagnostic procedures given in Table II and note the patient's responses. If there is a question concerning the diagnosis or which tooth is involved, it is best to wait and observe the situation until the patient presents with more definite symptoms.

### TREATMENT

Once the problem has been identified, administer treatment to alleviate the patient's pain. Use only temporary measures until a dental officer can render definitive treatment. There are two temporary

treatments: the temporary filling and the establishment of drainage.

To prepare a temporary filling, you will need a dental mirror and explorer, cotton pliers, spoon excavator, plugger-type instrument, zinc oxide powder, and eugenol liquid. These instruments and materials are essential in a dental emergency kit.

#### *To treat reversible pulpitis:*

1. Isolate the area with 2" x 2" gauze sponges to avoid contamination by saliva.
2. With a dental spoon excavator, remove as much debris as possible from the cavity.
3. With a tongue depressor, prepare a thick mixture of zinc oxide and eugenol (ZnOE).
4. Using the plugger, place the mixture in the dried cavity.
5. Dispense analgesics, if necessary.

#### *To treat irreversible pulpitis:*

1. Remove as much debris as possible from the cavity.
2. Soak a cotton pellet in eugenol, squeeze it dry with a gauze sponge and place the pellet in the cavity.
3. Prepare a soft zinc oxide-eugenol (ZnOE) mixture and place the mixture over the cotton pellet in the cavity, using minimal pressure.
4. Dispense analgesics, if necessary.

#### *To treat acute apical abscess:*

In this condition, pulpitis has progressed into the surrounding tissues. Because the abscess could turn into a serious, diffuse infection, the condition requires not only immediate attention, but also the attention of a dental officer. The treatment is drainage of the pulp:

1. Record the patient's oral temperature.
2. Remove debris from the cavity to establish drainage through the tooth. If drainage is established, the patient will experience immediate relief.
3. If drainage does not occur through the tooth and there is localized swelling of the soft tissue in the

LCDR Hwang is a staff member of the Department of Endodontics, Naval Regional Dental Center, Great Lakes, Ill. 60088. LT Aker is with the Dental Department, U.S. Naval Mobile Construction Battalion 40, FPO San Francisco 96601. The authors thank CAPT Edward M. Osetek (DC) for his guidance in preparing this article.



area, establish drainage by lancing the soft or fluctuant swelling.

4. Instruct the patient to use warm saltwater soaks ( $\frac{1}{2}$  teaspoon salt in 10 oz. warm water) for three minutes every hour for at least one day.
5. Dispense oral penicillin or a substitute medication if drainage is not established by following steps 2 and 3.
6. Dispense analgesics if the patient still has pain.
7. Send the patient to the nearest dental facility.

The final phase of emergency treatment is the logical extension of patient management: following the progress of the patient. As noted before, follow-up is imperative for an acute apical abscess.

### SUMMARY

With simple diagnostic techniques and the addition of a few dental instruments, zinc oxide, and eugenol to the sick call supply kit, you can safely relieve most dental complaints, at least temporarily, and make the patient comfortable without relying on strong analgesics.

TABLE I. History of Tooth Pain

1. Have you had this pain before?
2. Is the pain provoked by cold, hot, or sweet foods?
3. Is the pain provoked by biting?
4. Does the pain occur spontaneously, without being provoked?
5. How long does the pain last?
6. Does the pain wake you up at night?
7. How much does it hurt?

The responses below indicate:

Reversible Pulpitis	Irreversible Pulpitis	Acute Apical Abscess
No	Yes	Yes
Yes	Yes	Yes, by hot foods
No	Yes	Yes
No	Yes	Yes
Momentary	Prolonged	Constant
No	Yes	Yes
Mild to Moderate	Severe	Severe

TABLE II. Diagnostic Procedure for Tooth Pain

The answers below indicate:

1. Visual: Is the tooth decayed or discolored? Does it have a filling?
2. Percussion: Determine if the tooth is tender by tapping it with the handle of a dental instrument.
3. Thermal: Ask the patient to hold cold water, then warm water in his mouth. Notice if either causes discomfort.
4. Palpation: Feel the soft tissue around the tooth. Is there any soft swelling or abnormal enlargement in the area?

Reversible Pulpitis	Irreversible Pulpitis	Acute Apical Abscess
No	Yes	Yes
No	Yes	Yes
Yes (cold)	Yes (warm)	Yes (warm)
No	No	Yes

## DON'T MISS

# Ejection Injuries: Are They Worse In Combat?

Injuries sustained by Navy aircrewmembers who ejected from disabled aircraft during combat in Vietnam were more numerous and more severe than injuries of men who escape from aircraft under noncombat conditions. In "Biomedical Aspects of Aircraft Escape and Survival Under Combat Conditions," the report of a study done for the Office of Naval Research, Martin G. Every and James F. Parker, Jr. discuss the stresses and adverse conditions fliers encounter in combat, and suggest ways to reduce combat pilots' chances of injury if they must eject.

After studying medical data on fliers forced to eject during combat in Southeast Asia, the researchers concluded that most injuries involved extremity fractures and dislocations sustained when pilots ejected from aircraft flying at high speeds and relatively low altitudes. Serious and extensive injuries also made escape and

rescue more difficult, as injuries were frequently compounded when the pilot attempted evasion.

When the authors compared extent of injury for various ejection seats, they found that men who used the seat pan handle sustained more multiple flail injuries than men who used the face curtain, and almost twice as many spinal compression fractures. Flail injuries were more frequent when pilots used ejection seats which did not have leg restraints. Ejection through the canopy resulted in a disproportionate number of severe lacerations.

The authors suggest that extremity restraints would reduce flail injuries and improve survival chances for Navy aircrewmembers who eject at high speeds.

The report was published in March 1976. It is available from the authors at BioTechnology, Inc., 3027 Rosemary Lane, Falls Church, Va. 22042.

# Roster of Staff Medical and Dental Officers at Major Activities

CINCPACFLT/CINCPAC (ADDU): RADM R.G.W. Williams, Jr., MC (ADDU); CAPT R.W. Bruce, DC (ADDU);  
CINCPACFLT: AO CAPT J. Wolf, MSC

CINCLANT/CINCLANTFLT/SACLANT (COMTRALANT): RADM P.O. Geib, MC; RADM G.A. Besbekos, DC  
(ADDU); SACLANT: AO CDR W.I. Casler, MSC

CINCUSNAVEUR: CAPT H.E. Shute, MC (ADDU); CAPT R.S. Nolf, DC (ADDU)

COMNAVFOR JAPAN: CAPT G.E. Gorsuch, MC (ADDU); CAPT E.T. Witte, DC (ADDU)

COMNAVAIRLANT: CAPT R.J. Seeley, MC; CAPT R.H. Howard, DC (ADDU)

COMNAIRPAC: CAPT K.H. Reichardt, MC; CAPT J.E. Hyde, DC (ADDU); AO LCDR C. Schmutz, MSC

COMSUBLANT: CDR W.B. Maffey, MC

COMSUBPAC: CAPT R.T. Larsen, MC; CAPT R.W. Bruce, DC (ADDU)

COMNAVSURFLANT: CAPT W.M. Phillips, MC

COMNAVSURFPAC: CAPT J.W. Johnson, MC; AO LCDR B.L. Ozment, MSC

## FIRST NAVAL DISTRICT

NRMCCLINIC PORTSMOUTH, NH: CO CDR M.L. Cooper, MSC; XO LCDR D. McDermott, MSC; SR NUR CDR  
M. Crockett, NC

NRMC NEWPORT, RI: CO CAPT V.L. Stotka, MC; DCS CAPT W.L. Williams, MC; DAS CDR F. Richardson,  
MSC; CH NUR CAPT L. Robinson, NC

NRDC NEWPORT, RI: CO CAPT L.R. Pistocco, DC; DCS CAPT C.J. Shultz, Jr., DC

## THIRD NAVAL DISTRICT

SUB MED CEN, NEW LONDON, CT: CO CAPT J.H. Baker, MC; DCS CDR G.E. Griffin III, MC; DAS CAPT B.A.  
McKay, NC

SUB MED RESEARCH LAB, GROTON, CT: CO CDR R.L. Spahr, Jr., MC

## FOURTH NAVAL DISTRICT

NRMC PHILADELPHIA, PA: CO RADM R.L. Baker, MC; DCS CAPT R.A. Baker, MC; DAS CAPT H.S. Rudolph,  
MSC; CH NUR CAPT A. Foley, NC

NRDC PHILADELPHIA: CO CAPT J.H. Scribner, DC; DCS CAPT H.E. Freeburn, Jr., DC

NAV MED MAT SUP COM, PHILADELPHIA: CO CAPT O. Stallings, MSC; XO CDR R.E. Stockman, MSC

## **FIFTH NAVAL DISTRICT**

NRMC PORTSMOUTH, VA: CO RADM W.J. Jacoby, Jr., MC; DCS CAPT D.C. Good, MC; DAS CDR G.W. Millard, MSC; CH NUR CAPT M.P. Brennan, NC

NRDC NORFOLK, VA: CO RADM G.A. Besbekos, DC; DCS CAPT W.E. Quilter, Jr., DC; DAS CDR J.J. Kehoe, Jr., MSC

NAV OPHTHALMIC SUPPORT & TRAINING ACT, WILLIAMSBURG, VA: CO CAPT M.J. Testa, MSC; XO CAPT J.G. Wilcox, MSC

NAVHOS CHERRY POINT, NC: CO CAPT H.H. Coulson, MSC; DAS LCDR R. Hurder, MSC; CH NUR CDR E. CARSON, NC

NRMC CAMP LEJEUNE, NC: CO CAPT T. Richter, MC; DCS CAPT C.R. Bemiller, MC; DAS CAPT W.E. Whitlock, MSC; CH NUR CAPT T. Proto, NC

NRDC CAMP LEJEUNE: CO CAPT R. Slater, DC; DCS CAPT N. Luther, DC; DAS LCDR D. Wenrick, MSC

ENVIRONMENTAL & PREV MED UNIT #2, NORFOLK, VA: OIC CAPT W.J. Brownlow, MC

## **SIXTH NAVAL DISTRICT**

NRMC CHARLESTON, SC: CO CAPT E.B. McMahon, MC; DDO CAPT C.H. Lowery, MC; DAS CDR G.M. Ellis, MSC; CH NUR CAPT R. Pampush, NC

NRDC CHARLESTON: CO CAPT N.C. Demaree, DC; DCS CAPT W.P. Kelly, DC; DAS LCDR L.T. Foskey, MSC

NAVHOSP BEAUFORT, SC: CO CAPT C.W. Bramlett, MC; DCS CAPT W.R. Mullins, MC; DAS CDR C.A. McFee, MSC; CH NUR CAPT M. Maynard, NC

NRDC PARRIS ISLAND, SC: CO CAPT J.J. Thomas, Jr., DC; DCS CAPT A. Herr, DC

NRMC JACKSONVILLE, FL: CO CAPT M. Museles, MC; DCS CAPT C.C. Muehe, MC; DAS CAPT H.P. Miller, MSC; CH NUR CAPT M.J. Walker, NC

NRDC JACKSONVILLE: CO CAPT E. Woodland, Jr., DC; DCS CAPT E. Plump, DC; DAS LCDR M. Kern, MSC

NAVHOSP KEY WEST, FL: CO CAPT P.F. Wells II, MC; DAS LCDR F.D.R. Fisher, MSC; CH NUR CAPT C. Finn, NC

NRMC MEMPHIS, MILLINGTON, TN: CO CAPT R.M. Lehman, Jr., MC; DCS CAPT G.C. Bingham, MC; DAS CDR F.E. Bennett, MSC; CH NUR CAPT H.I. Furmanchik, NC

NRMC ORLANDO, FL: CO CAPT A.L. Powell III, MC; DCS CAPT N.S. Nuredini, MC; DAS CDR L.H. Turbeville, MSC; CH NUR CAPT J.M. Redgate, NC

NRDC ORLANDO: CO CAPT H.C. Pund, Jr., DC; DCS CAPT H.S. Samuels, DC; DAS CDR W.E. Groce, MSC

NAV AEROSPACE & REG MED CEN, PENSACOLA, FL: CO RADM R.D. Nauman, MC; DCS CAPT M.C. Carver, MC; DAS CAPT S.D. Barker, MSC; CH NUR CAPT R. Halverson, NC

NRDC PENSACOLA: CO CAPT J.W. Pentecost, DC; DCS CAPT S.E. Pepek, DC; DAS LCDR J.W. Smith, MSC

NAV AEROSPACE MED RESEARCH LAB, PENSACOLA: CO CAPT R.E. Mitchel, MC

NAV AEROSPACE MED INST, PENSACOLA: CO CAPT H.S. Trostle, MC; XO CDR T.F. Levandowski, MSC

DISEASE VECTOR ECOLOGY & CONTROL CEN, JACKSONVILLE, FL: OIC CAPT W.B. Hull, MSC



### **EIGHTH NAVAL DISTRICT**

NRMC CORPUS CHRISTI, TX: CO CAPT J.R. Lukas, MC; DCS CAPT G.B. Hart, MC; DAS CDR G.W. Baldauf, MSC; CH NUR CAPT M. Donoghue, NC

NRMC NEW ORLEANS, LA: CO CAPT P.C. Gregg, MC; DCS CAPT R.A. Grenier, MC; DAS CDR J.L. Graves, MSC; CH NUR CAPT B. Nagy, NC

### **NINTH NAVAL DISTRICT**

NRMC GREAT LAKES, IL: CO CAPT M.J. Valaske, MC; DCS CAPT R.C. Elliott, MC; DAS CDR R.E. Tandy, MSC; CH NUR CAPT E.M. Pfeffer, NC

NRDC GREAT LAKES: CO CAPT C.J. McLeod, DC; DCS CAPT R.D. Prince, DC; DAS CDR M.K. Law, MSC

NAV DEN RESEARCH INST, GREAT LAKES: CO CAPT M.R. Wirthlin, DC

NAV HOSP CORPS SCHOOL, GREAT LAKES: CO CDR V.A. Swindall, MSC; XO LCDR F. Briand, MSC; SR NUR CDR C. Clunan, NC

NAV ENVIRONMENTAL HEALTH CEN, CINCINNATI, OH: OIC CAPT T.N. Markham, MC

### **TENTH NAVAL DISTRICT**

NAVHOSP GUANTANAMO BAY, CUBA: CO CAPT T.J. Trumble, MC; DAS CDR W.E. Branscum, MSC; CH NUR CDR M. Lukacs, NC

NAVHOSP ROOSEVELT ROADS, PR: CO CAPT W.J. Wagner, MC; DAS CDR J. Dewitt, MSC; CH NUR CAPT B. Slater, NC

NRDC ROOSEVELT ROADS, PR: CO CAPT D.E. Barlow, DC; DCS CAPT R.A. Murphy, DC; DAS LCDR L.R. Mock, MSC

### **ELEVENTH NAVAL DISTRICT**

NRMC CAMP PENDLETON, CA: CO CAPT R.F. Milnes, MC; DCS CAPT J.J. Gunning, MC; DAS CAPT F.C. Pittington, MSC; CH NUR CAPT P. Portz, NC

NAV DEN CLINIC, CAMP PENDLETON: CO CAPT B.C. Sharp, DC; DCS CAPT J.D. Mahoney, DC; DAS LCDR J.D. Galbreath, MSC

NRMC LONG BEACH, CA: CO CAPT E.P. Rucci, MC; DCS CAPT J.A. Zimble, MC; DAS CDR D.E. Shuler, MSC; CH NUR CAPT A. Williams, NC

NRDC LONG BEACH: CO CAPT H.W. Hodson, DC; DCS CAPT F.A. Papera, DC; DAS LCDR A.E. Kennedy, MSC

NAV SCHOOL HEALTH SCIENCES, SAN DIEGO, CA: CO CAPT R.E. Hunter, MSC; XO CDR G.E. Hammett, MSC; SR NUR CAPT M. Perlow, NC

ENVIRONMENTAL & PREV MED UNIT #5, SAN DIEGO: OIC CAPT S.J. Kendra, MC

NAVHOSP PORT HUENEME, CA: CO CAPT M.F. Tanner, MSC; DAS CDR J.E. Johns, MSC; CH NUR CDR M. Gampper, NC

NRMC SAN DIEGO: CO RADM D.E. Brown, Jr., MC; DCS CAPT B.L. Johnson, MC; DAS CAPT E.E. Fowler, MSC; CH NUR CAPT D. Cornelius, NC

NRDC SAN DIEGO: CO RADM W.L. Darnell, Jr., DC; DCS CAPT E.J. Heinkel, Jr., DC; DAS CDR R.W. Johnson, MSC

NAV HEALTH RESEARCH CEN, SAN DIEGO: CO CAPT E.F. Coil, MC; XO CDR N.H. Berry, MSC

#### **TWELFTH NAVAL DISTRICT**

NRMC OAKLAND, CA: CO RADM H.A. Sparks, MC; DCS CAPT V.M. Holm, MC; DAS CDR H.H. Sowers, MSC; CH NUR CAPT K. Zabel, NC

NAVHOSP LEMOORE, CA: CO CAPT E.B. Miller, MSC; DAS CDR F. Teague, MSC; CH NUR CDR J.B. Dudley, NC

NAV CLINIC, SAN FRANCISCO, CA: CO CAPT W.G. Brown, MSC; XO CDR H.E. Daniel, MSC

NRDC SAN FRANCISCO: CO CAPT J.B. Holmes, DC; DCS CAPT R.P. Morse, DC; DAS CDR G. Ramirez, MSC

DISEASE VECTOR ECOLOGY & CONTROL CEN, ALAMEDA, CA: OIC LCDR R.V. Peterson, MSC

NAV BIOMED RESEARCH LAB, OAKLAND: CO CDR J.F. Pribnow, MSC

#### **THIRTEENTH NAVAL DISTRICT**

NRMC BREMERTON, WA: CO CAPT H.P. Pariser, MC; DCS CAPT K.A. Gaines, MC; DAS CDR J.J. Palmer, MSC; CH NUR CAPT M.G. Stewart, NC

NRDC BREMERTON: CO CAPT R.G. Thompson, DC; DCS CAPT J.E. Miller, DC; DAS LCDR E.C. Hansen, MSC

NAVHOSP WHIDBEY ISLAND, OAK HARBOR, WA: CO CAPT J.C. Smout, MSC; DCS CAPT G.T. Fairfax, MC; DAS CDR P.O. Dilley, MSC; CH NUR CAPT L. Peterson, NC

NAV CLINIC, NSA, SEATTLE, WA: CO CAPT C.F. Tedford, MSC; SR NUR LCDR V.E. Boyce, NC

#### **FOURTEENTH NAVAL DISTRICT**

NRMCLINIC PEARL HARBOR, HI: CO CAPT S.A. Youngman, MC; DAS CDR D.R. Ferguson, MSC; SR NUR CDR J.A. Morton, NC

NRDC PEARL HARBOR: CO CAPT R.W. Bruce, DC; DCS CAPT T.F. McCann, DC; DAS LCDR J.D. Delaughter, MSC

NAV MED ADMIN UNIT, TRIPLER ARMY HOSP, HONOLULU: OIC CDR B.L. Stephens, MSC

ENVIRONMENTAL & PREV MED UNIT #6, PEARL HARBOR: OIC CDR T.R. Byrd, MC

#### **NAVAL DISTRICT, WASHINGTON, D.C.**

NAVHOSP ANNAPOLIS, MD: CO CAPT J.D. Pruitt, MSC; DCS CAPT R.A. Proulx, MC; DAS CDR A.J. Zseltvay, MSC; CH NUR CAPT L.E. Spencer, NC

NATIONAL NAV MED CEN, BETHESDA, MD: CO RADM J.T. Horgan, MC; DCS CAPT Q.E. Crews, Jr., MC; DAS CDR G.P. Kane, MSC; CH NUR CAPT F.T. Shea, NC

NATIONAL NAV DEN CEN, BETHESDA: CO CAPT S.T. Elder, DC; DCS CAPT A.E. Sorenson, DC; DAS CDR P.T. Ray, MSC

NAV HEALTH SCIENCES EDUCATION & TRAINING COMMAND, NNMC, BETHESDA: CO RADM J.W. Cox, MC; AO CDR D.R. Craig, MSC

NAV SCHOOL HEALTH CARE CARE ADMIN, BETHESDA: CO CAPT E.A. Bryant, Jr., MSC; XO CDR P. Collier, MSC

NAV MED RESEARCH INST, BETHESDA: CO CAPT K.W. Sell, MC; AO CDR M.L. Fitts, MSC

NAV MED RESEARCH & DEV COM, BETHESDA: CO CAPT C.E. Brodine, MC; EXEC ASST CDR W. Schroeder, MSC

ARMED FORCES INST PATHOLOGY, WASHINGTON, DC: DIR CAPT E.C. Cowart, Jr., MC

NAV MED DATA SERV CEN, BETHESDA: CO CDR J.R. Knight, MSC; XO LCDR F.C. Anderson, MSC

NAVHOSP PATUXENT RIVER, MD: CO CDR J.R. Erie, MSC; DAS CDR E.R. Christian, MSC; CH NUR CAPT D.H. Hooker, NC

NAVHOSP QUANTICO, VA: CO CAPT R.F. Schindele, MSC; DCS CAPT I.C. Mazzearella, MC; DAS CDR R.B. Hinds, MSC; CH NUR CDR M.F. Hall, NC

## **ITALY**

NRMC NAPLES, IT: CO CAPT H.O. Kretzschmar, MC; DCS CAPT J.V. Sharp, MC; DAS CDR J.J. Steil, MSC; CH NUR CAPT C. Shea, NC

NRDC NAPLES: CO CAPT R.D. Cullom, DC; DCS CAPT J.T. Janus, DC; DAS CDR R.S. Skelly, MSC

NAV ENVIRONMENTAL & PREV MED UNIT #7, NAPLES: OIC CAPT R.L. Marlbor, MC

## **JAPAN**

NRMC YOKOSUKA, JAPAN: CO CAPT G.E. Gorsuch, MC; DAS LCDR T.E. Thomas, MSC; CH NUR CDR E. Graves, NC

NRDC JAPAN: CO CAPT E.T. Witte, DC; DCS CDR J.E. Matson, DC; DAS LCDR E. Piersol, MSC

NRMC OKINAWA, JAPAN: CO CAPT C.S. Lambdin, MC; DAS CDR C. Moore, MSC; CH NUR CAPT M. Conlay, NC

## **MARIANA ISLANDS**

NRMC GUAM, MI: CO CAPT I.J. Woodstein, MC; DCS CDR R.G. Sablan, MC; DAS CDR E.J. Hatch, MSC; CH NUR CDR M. Kelly, NC

NRDC GUAM: CO CAPT P.R. Falcone, DC; DCS CAPT G.A. Short, DC; DAS LCDR L.R. Maasen, MSC

## **CAIRO, EGYPT**

NAV MED RESEARCH UNIT #3, CAIRO: CO CAPT W.G. Miner, MC; AO LCDR W.A. Ferris, MSC; SR NUR CDR M.J. Nelson, NC

## **ADDIS ABABA, ETHIOPIA**

NAV MED RESEARCH UNIT #5, ADDIS ABABA: CO CAPT R.H. Watten, MC, USNR; AO LCDR D.E. Cole, MSC



**TAIWAN**

NAVHOSP TAIPEI, TAIWAN: CO CAPT S.H. Ling, MC; DAS CDR K.L. Darr, MSC; CH NUR CDR J. Porter, NC

NAV MED RESEARCH UNIT #2, TAIPEI: CO CDR K. Sorensen, MC

**REPUBLIC OF THE PHILIPPINES**

NAVHOSP SUBIC BAY, ROP: CO CAPT E.L. Bingham, MC; DAS CDR W.L. Blankenship, MSC; CH NUR CDR D.A. Yelle, NC

NRDC SUBIC BAY: CO CAPT D.N. Firtell, DC; DCS CAPT N.H. Tracy, Jr., DC

**SPAIN**

NRMC ROTA, SPAIN: CO CAPT R.E. Kinneman, Jr., MC; DAS CDR R.A. Morin, MSC; CH NUR CDR E. Sullivan, NC

**HQ MARINE CORPS AND FLEET MARINE FORCE**

HQ, U.S. MARINE CORPS: CAPT D.R. Hauler, MC; CAPT A.R. Smith, DC; AO CAPT E.T. Steward, MSC

HQ, FMF ATLANTIC: CAPT R.R. Palumbo, MC; FORDO CAPT M.C. Kohler, DC; AO LCDR R.F. Coxe, MSC

SECOND MARINE DIVISION SURGEON: CAPT R.J. Zullo, MC; AO LCDR P.R. Milliken, MSC

SECOND MARINE AIRCRAFT WING: CAPT E.L. Gehry, MC

HQ, FMF PACIFIC: CAPT B.C. Johnson, MC; FORDO CAPT T.C. Enger, DC; AO CDR C.A. Roper, MSC

FIRST MARINE DIVISION: CDR R.C. Hodges, MSC; AO LCDR A.L. Sides, MSC

FIRST MARINE AIRCRAFT WING: CAPT P.C. Bigler, MC; AO LCDR T. Medlock, MSC

FIRST MARINE BRIGADE: CAPT L. Fout, MC; AO LCDR G.B. Spillman, MSC

THIRD MARINE DIVISION SURGEON: CDR C.M. Day III, MC; AO LCDR G.O. McCracken, MSC

THIRD MARINE AIRCRAFT WING: CAPT G.E. Balyeat, MC

FIELD MED SERV SCHOOL, CAMP PENDLETON, CA: CO CAPT W.H. Jones, MSC; XO CDR E.N. Condon, MSC

FIELD MED SERV SCHOOL, CAMP LEJEUNE, NC: CO CAPT L.W. Gay, MSC; XO CDR J.M. Correll, MSC

# NAVMED Newsmakers

ENS **Lilly E. Purrier** (NC) won top honors last October at graduation ceremonies for the Navy's Officer Indoctrination School—but her husband wasn't far behind. ENS **Bruce L. Purrier** of the Civil Engineer Corps was runner-up in the competition for the School's honor award. The Purriers are now assigned to Navy facilities in Port Hueneme, Calif.

Patients at Naval Station Norfolk don't have to go to the regional dental center to find out how to save their teeth—preventive dentistry experts come to *them*. One who helps is DT3 **Richard Elgin**, a member of the dental team that passes out tooth-saving tips and gives fluoride treatments in a mobile van parked at the Navy destroyer and submarine piers in Norfolk. "People who have been avoiding dental treatment often develop confidence in our personnel and are brought into a treatment program through contact with the mobile unit," says DT3 Elgin's boss, CAPT **Samuel S. Lusk** (DC).

With only 4 doughnuts to go, DT2 **Tom Lynam** had to give up his second attempt to crack the world record for eating doughnuts. "The last time they were day-old doughnuts; this time I tried fresh ones," DT2 Lynam lamented. But the ripeness of the tasty morsels didn't help: his stomach rebelled after number 23, a few doughnuts short of the 27-doughnut record set in 1975. The dental technician at Branch Dental Clinic, New River, N.C., hopes to try again—maybe with chocolate doughnuts?

The career of LT **Sudhir D. Naik** (MC) spans half the globe: from Bombay, India, where he was born and completed medical school, to his current assignment as senior medical officer at the Branch Clinic,



DT3 Elgin: Have fluoride, will travel

Navy Aviation Supply Office, Philadelphia. After practicing medicine in Bombay for three years, Dr. Naik immigrated to the U.S. in 1973 and joined the Naval Reserve in July 1976. While he was a resident at Bombay Medical College his parents arranged his marriage to Nalini Desai, now a third-year resident in psychiatry at a Philadelphia hospital.

The only thing better than your first rib-eye steak cooked over a campfire is your second steak—that was the consensus of patients and corpsmen at NRMCOakland after the 1976 Fiddle-Footed Four-Wheelers' trek to the Sierras. Every year, Oakland patients and their corpsman-escorts are guests of the Four-Wheeler and San Jose Mountain Transit Authority Clubs for an exciting, two-day overland ride into the wilderness. Although this time out the trail was rocky and the accommodations primitive, the roughriders were undaunted. The trip was coordinated by HMC **George Canning**; patient escorts were HM2 **Allen North**, HM3 **Mark Gainrich**, and HNs **Walter Adamczyk** and **William Hawkes**.



NRMCOaklanders: Have jeep, will trek

U.S. NAVAL PUBLICATIONS and FORMS CENTER  
ATTN: CODE 306  
5801 Tabor Avenue  
Philadelphia, Pa. 19120  
Official Business

POSTAGE AND FEES PAID  
DEPARTMENT OF THE NAVY  
DoD-316



CONTROLLED CIRCULATION RATE

### SUBSCRIPTIONS AVAILABLE

U.S. NAVY MEDICINE is now available by subscription. Supporters of Navy medicine who are not eligible for free distribution, or who want their copy sent to their home address may order a personal

subscription through the U.S. Government Printing Office. Subscription rates are \$11 per year (12 issues) to addresses within the U.S., and \$14 per year to foreign addresses.

-----  
Enter my subscription to U.S. NAVY MEDICINE.—\$11.00 domestic mailing—\$14.00 foreign mailing. (Subscription rates include postage and handling costs. Make checks payable to Superintendent of Documents.)

Send Subscription to:

NAME—FIRST, LAST																													
COMPANY NAME OR ADDITIONAL ADDRESS LINE																													
STREET ADDRESS																													
CITY															STATE					ZIP CODE									

MAIL SUBSCRIPTION FORM TO:  
Assistant Public Printer  
(Superintendent of Documents)  
Government Printing Office  
Washington, DC 20402

PLEASE PRINT

U.S. NAVY MEDICINE